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THE BRITISH SCHOOL AT ATHENS

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ABSTRACTS

BARBER, R.L.N., Unpublished pottery from Phylakopi

A catalogue of pottery, all or most of it from the 1911 excavations of the British School at Phylakopi, set out by shape and motif, is accompanied by a summary collation of evidence for dating and provenance across the Cyclades. Investigation of the material provides some new information about the character of the Phylakopi pottery and the contexts in which it was found. The material prompts observations on a number of questions in the area of Cycladic prehistoric ceramics, prominent among which is the transition from E to MC. Some suggestions are offered as to topics which require investigation. The study should be seen as a continuation of work by the same writer which appeared in BSA 69 (1974).

Αδημοσίευτη κεραμική από τη Φυλακωπή

Ένας κατάλογος αγγείων και οστράκων, όλα ή τα περισσότερα από αυτά από τις ανασκαφές της Βρετανικής Σχολής στη Φυλακωπή κατά το 1911, οργανωμένος κατά σχήματα και μοτίβα, συνοδεύεται από μία σύντομη επισκόπηση των ενδείξεων που υπάρχουν από τα νησιά των Κυκλάδων γενικά σχετικά με τη χρονολόγηση και την προέλευσή τους. Από τη μελέτη του υλικού προκύπτουν ορισμένα νέα στοιχεία για το χαρακτήρα της ντόπιας κεραμικής της Φυλακωπής και τις ανασκαφικές της συνάφειες. Το άρθρο συμπεριλαμβάνει παρατηρήσεις πάνω σε διάφορα θέματα που αφορούν στην προϊστορική κεραμική των Κυκλάδων – το πιο σημαντικό από τα οποία αναφέρεται στο θέμα της μετάβασης από την Πρωτοκυκλαδική στη Μεσοκυκλαδική περίοδο. Επιπλέον, διατυπώνονται προτάσεις για θέματα που χρήζουν περαιτέρω έρευνας. Η παρούσα μελέτη θα πρέπει να θεωρηθεί ως συνέχεια της δημοσίευσης του συγγραφέα στο BSA 69 (1974).

HATZAKI, E., PRENT, M., †COLDSTREAM, J.N., EVELY, D. and LIVARDA, A.

Knossos, the Little Palace North Project, Part I: the early Greek periods

This article is the first of a series presenting the results of two seasons of excavation (2001 and 2002) at the Little Palace North site, Knossos. The excavation was aimed at the exploration of the exposed earth section directly north of the Little Palace, prior to the construction of a drystone wall which was to protect this section from further erosion. While limited in extent, the excavation provided an opportunity to increase our understanding of the layout of the LM and later town and, more generally, of the complex history of occupation of this area, which spans the period from at least the sixteenth century BC to the fourth century AD.

In regard to the early Greek periods, few architectural remains were encountered at the Little Palace North site. Instead, early Greek strata, covering all periods from Subminoan to Orientalizing, yielded evidence for various activities that took place outdoors. These activities included, in one area, the (enigmatic) use of large, clay-lined 'pans' and, in another, metal-working. The results add to our knowledge of the activities at early Greek Knossos and the spatial organization of the settlement.

The article offers a full discussion of the stratigraphy of the early Greek levels, the associated pottery, small finds, and archaeobotanical material.

Κνωσός, περιοχή βόρεια του Μικρού Ανακτόρου: η πρώιμη Ελληνική εποχή

Σε αυτό το άρθρο δημοσιεύονται – για πρώτη φορά – τα αποτελέσματα των ανασκαφών (2001 και 2002) στην περιοχή βόρεια του Μικρού Ανακτόρου στην Κνωσό. Σκοπός της ανασκαφής ήταν να ερευνηθεί η αρχαιολογική τομή που βρίσκεται αμέσως βόρεια του Μικρού Ανακτόρου, προτού ανεγερθεί ξερολιθιά με σκοπό να

προστατευθεί η τομή από περεταίρω διάβρωση. Παρόλο που ήταν περιορισμένη σε έκταση, η ανασκαφή μας έδωσε την δυνατότητα να καταλάβουμε καλύτερα την δομή της Υστερομινωικής και υστερότερης πόλης, ιδιαίτερα την πολύπλοκη ιστορία της κατοίκησης της περιοχής από το 16ο αιώνα π.Χ. μέχρι και τον 4ο αιώνα μ.Χ.

Σχετικά με την πρώιμη Ελληνική εποχή, ελάχιστα οικοδομικά λείψανα βρέθηκαν στην περιοχή βόρεια του Μικρού Ανακτόρου. Παρόλα αυτά, τα αρχαιολογικά στρώματα των πρώιμων Ελληνικών χρόνων καλύπτουν από την Υπομινωική μέχρι την Ανατολίζουσα περίοδο, παρουσιάζοντας ενδείξεις για διαφορές δραστηριότητες οι οποίες ελάμβαναν μέρος σε εξωτερικούς χώρους. Οι δραστηριότητες αυτές συμπεριλάμβαναν την αινυγματική χρήση μεγάλων “τηγανιών” με πηλίνη επικάλυψη, όπως και μεταλλουργία. Τα αποτελέσματα προσθέτουν στις γνώσεις μας για τις δραστηριότητες στην πρώιμη Ελληνική Κνωσό αλλά και για τη χωροταξία του οικισμού. Το άρθρο αυτό προσφέρει την πλήρη ανάλυση της στρωματογραφίας, της κεραμικής, των μικροευρημάτων και του αρχαιοβοτανολογικού υλικού των πρώιμων Ελληνικών χρόνων.

HORNBLOWER, Simon

Peter Fraser MA, MC, FBA (1918–2007)

This is a brief memoir of Peter Fraser, who was Director of the British School at Athens between 1968 and 1971, and a Hellenistic historian and epigraphist of international distinction.

Peter Fraser MA, MC, FBA (1918–2007)

Παρουσιάζεται μία σύντομη βιογραφία του διεθνούς φήμης ιστορικού και επιγραφικού της Ελληνιστικής περιόδου, Peter Fraser, ο οποίος διετέλεσε Διευθυντής της Βρετανικής Σχολής των Αθηνών μεταξύ των ετών 1968 και 1971.

HOTI, A., METALLA, E., SHKODRA, B. and WILKES, J.

Durrës Late Roman Forum

Excavations a decade ago in the centre of the city of Durrës (ancient Dyrrachium) in Albania revealed an extensive complex of concentric structures of the Late Roman and Early Byzantine eras. Initially identified as a market complex (*macellum*) of a type known in numerous Roman cities, it also became apparent that the circular paved area 40 m diameter within a colonnade at the centre represented a space intended for more formal activities and was most likely a Forum comparable with the Curved Forum at Constantinople. A central focus of the area was a rotunda c.5.75 m diameter that may have supported monumental statuary or possibly a column. In 2001 a record was made of the architectural remains and in 2004 and 2005 two unfinished trenches adjacent to the Rotunda were enlarged and completed. The dating evidence recovered from beneath the level of the Forum paving indicated a construction date around the end of the sixth century, making it likely that it was one of the embellishments conferred on his native city by the emperor Anastasius (491–518).

Αγορά των Ύστερων Ρωμαϊκών χρόνων στο Δυρράχιο

Οι προ δεκαετίας ανασκαφές στο κέντρο της πόλης του Δυρραχίου στην Αλβανία αποκάλυψε ένα εκτεταμένο συγκρότημα κυκλικών κατασκευών των Ύστερων Ρωμαϊκών και των Πρώιμων Βυζαντινών χρόνων. Μολονότι εξ' αρχής το συγκρότημα χαρακτηρίστηκε ως αγορά (*macellum*), ο τύπος της οποίας συναντάται σε πολλές Ρωμαϊκές πόλεις, έγινε επίσης φανερό, ότι ο πλαισιωμένος με περιστύλιο κυκλικός πλακόστρωτος χώρος διαμέτρου 40 μ αντιπροσώπευε στο κέντρο του ένα χώρο, ο οποίος προοριζόταν περισσότερο για επίσημες δραστηριότητες, ταυτιζόμενος κατά πάσα πιθανότητα με αγορά (Forum), εάν συγκριθεί με την Κυρτή Αγορά της Κωνσταντινούπολης. Το επίκεντρο του χώρου ήταν μία ροτόντα με διάμετρο 5.75 μ κατά προσέγγιση, η οποία ίσως να στήριζε ένα μνημειακό σύμπλεγμα αγαλμάτων ή πιθανώς έναν κίονα. Το έτος 2001 δημιουργήθηκε ένα αρχείο για τα αρχιτεκτονικά κατάλοιπα και κατά τα έτη 2004 και 2005 δύο μη ολοκληρωμένες ανασκαφικές

τομές, παρακείμενες της ροτόντας, επεκτάθηκαν και ανεσκάφησαν πλήρως. Τα δεδομένα χρονολόγησης, που συλλέχθηκαν κάτω από το επίπεδο του πλακόστρωτου της αγοράς τοποθετούν την οικοδόμησή της περί τα τέλη του 6ου αι. μ.Χ., συνηγορώντας προς την άποψη, ότι πιθανώς πρόκειται για ένα από τα αφιερώματα, που πρόσφερε στη γενέτειρά του, ο Αυτοκράτωρ Αναστάσιος (491–518 μ.Χ.).

KARKANAS, Panagiotis and STRATOULI, Georgia

Neolithic lime plastered floors in Drakaina Cave, Kefhalonia Island, Western Greece: Evidence of the significance of the site

The Neolithic layers of Drakaina Cave in Kefalonia Island are characterized by several successive well-preserved plaster floors. These constructed floors, along with the relating archaeological sediments, were examined using micromorphological techniques, which involve the study of petrographic thin sections produced by resin-impregnated, undisturbed blocks of sediment.

At Drakaina, lime plaster was identified as the construction material of the floors, which consist of a mixture of clay and burnt lime as well as a large amount (30–40%) of lime lumps with signs of incomplete transformation to quicklime during the burning process. The raw material used for the production of lime was the soft Neogene marl and limestone found in the nearby areas of the site. The presence of large amounts of lime lumps as a form of plaster aggregate is most likely the product of traditional ‘hot mixing’ or ‘dry slaking’ techniques.

The periodically repeated construction of the stable lime plaster floors in Drakaina using the same techniques as well as the same raw material suggests—among other things—the significance of the site as a locus of recurring social activity. The long lasting consistent method of floor construction combined with possible intensive activity at times implies that the cave and the surrounding environment were of particular importance to the Neolithic community of the area.

Νεολιθικά δάπεδα από ασβεστοκονίαμα στο σπήλαιο Δράκαινα, νήσος Κεφαλονιά, Δυτική Ελλάδα: Ενδείξεις για τη σημασία της θέσης

Τα νεολιθικά στρώματα του Σπηλαίου Δράκαινα στην Κεφαλονιά χαρακτηρίζονται από αλλεπάλληλα και καλά διατηρημένα δάπεδα. Τα κατασκευασμένα αυτά δάπεδα μαζί με τις αρχαιολογικές τους αποθέσεις μελετήθηκαν με τη μέθοδο της μικρομορφολογίας, η οποία συνίσταται στη μελέτη πετρογραφικών λεπτών τομών από αδιατάρακτα δείγματα επίχωσης, εμποτισμένα προηγουμένως με ειδικές ρητίνες.

Στη Δράκαινα αναγνωρίστηκε ότι το υλικό κατασκευής των δαπέδων είναι ασβεστοκονίαμα αποτελούμενο από μείγμα αργίλου και ασβέστη μαζί με μεγάλη ποσότητα (30–40%) αδιάλυτων συσσωματωμάτων ασβέστη ως αποτέλεσμα της ατελούς μετατροπής του ασβεστόλιθου κατά την πύρωση. Ως πρώτη ύλη για την παρασκευή του ασβέστη χρησιμοποιήθηκαν νεογενείς μαλακές μάργες και ασβεστόλιθοι της περιοχής. Η παρουσία μεγάλων ποσοτήτων συσσωματωμάτων ασβέστη ως συνδετικό υλικό είναι αποτέλεσμα συγκεκριμένης τεχνικής, γνωστής ως “μείξη ασβέστη εν θερμώ”.

Η περιοδική κατασκευή στέρεων δαπέδων από ασβεστοκονίαμα στη Δράκαινα με την ίδια τεχνική και την ίδια πρώτη ύλη υποδεικνύει -μεταξύ άλλων- τη σημασία της θέσης ως τόπου επαναλαμβανόμενης κοινωνικής δραστηριότητας. Η επί μακρόν αμετάβλητη μέθοδος κατασκευής των δαπέδων, συνδυαζόμενη με την εντατική κατά καιρούς χρήση της θέσης, υποδηλώνουν ότι το σπήλαιο και το ευρύτερο περιβάλλον του ήταν ιδιαίτερα σημαντικά για τη νεολιθική κοινότητα της περιοχής.

KOTSONAS, Antonis

The discovery of Eleutherna: from the formation of the modern Cretan state to Humfry Payne’s excavations (1899–1929)

Located in west-central Crete, the ancient city of Eleutherna attracted considerable scholarly interest at the end of the nineteenth and the early twentieth centuries. Drawing on largely unpublished archival

information, this paper sheds light on the first archaeological explorations of the site, describing their aims, scope, vicissitudes, and results. Emphasis is given on the plans that the Italian School of Archaeology at Athens developed for Eleutherna and the excavations conducted there, first by the local ephor, E. Petrulakis, and then by the British School at Athens. The 'discovery of Eleutherna' is assessed with reference to the shifting scholarly agenda of Cretan archaeology in that period and its relation to major developments in the island's political history.

Η ανακάλυψη της Ελεούθερνας: από το σχηματισμό της σύγχρονης (ή νεώτερης) κρητικής πολιτείας έως τις ανασκαφές του Humfry Payne (1899–1929)

Η Ελεούθερνα, μια αρχαία πόλη ευρισκόμενη στο κεντρικό προς δυτικό τμήμα της Κρήτης, προσήλκυσε το έντονο ενδιαφέρον των αρχαιολόγων κατά τα τέλη του 19ου και τον πρώιμο 20ο αιώνα. Αντλώντας πληροφορίες από αδημοσίευτο κυρίως, αρχειακό υλικό, η παρούσα μελέτη επιχειρεί μια ανασύνθεση των πρώτων αρχαιολογικών ερευνών στην αρχαία πόλη, εξετάζοντας τα κίνητρα και τους στόχους τους αλλά και τις δυσκολίες και τα αποτελέσματά τους. Έμφαση δίδεται στα σχέδια της Ιταλικής Αρχαιολογικής Σχολής Αθηνών για την Ελεούθερνα, αλλά και στις ανασκαφές που διενέργησαν στη θέση πρώτα ο τοπικός έφορος αρχαιοτήτων, Ε. Πετρουλάκης, και αργότερα η Βρετανική Σχολή Αθηνών. Η «ανακάλυψη της Ελεούθερνας» εξετάζεται σε σχέση με τις μεταβαλλόμενες ερευνητικές προτεραιότητες της κρητικής αρχαιολογίας της περιόδου αλλά και σημαντικές αλλαγές στην πολιτική ιστορία του νησιού.

LENTINI, M. C., BLACKMAN, D. J. and PAKKANEN, J.

The Shipsheds of Sicilian Naxos: A Second Preliminary Report (2003–6)

This paper presents the results of the second and main period of excavation. The limits of the site were defined: a monumental building with four covered slipways or shipsheds, flanking another major public building, quite possibly the agora. Preliminary conclusions based on the 2001 excavation of the northernmost shipshed (*BSA* 2003) can be supplemented and modified.

The surprising discovery was ramps of sand, resurfaced several times during the second half of the fifth century. Shipsheds 3–4 produced evidence of two architectural phases, with the back- and side-walls moved upslope, and the ramps now ending in an upswinging curve.

The existence of an early phase in the dockyard, already indicated in 2001, was confirmed. The later roof of Corinthian type, without decoration (second half of fifth century), was preceded by a roof of the late sixth–early fifth century BC, attested in particular by a remarkable series of antefixes, both Sileni and Gorgoneia, found in every shed, with some concentration in sheds 2 and 3, and with a number of other architectural terracottas (all described in the catalogue). The excavation context shows that this material comes from the same roof, indicating the very unusual combination of Silenus mask and Gorgon mask antefixes.

Other finds are more briefly discussed. Remains of red and blue pigment show that ships were painted in the shipsheds. Pottery finds provide considerable evidence of drinking; so do some graffiti, while others may be ostraka for a selection procedure (possibly ostracism). A scatter of arrow-heads and a few spear-heads have been found in the working levels of the ramps.

The case is put for shipsheds as monumental architecture, with some specifically Sicilian features. Comparative material for use of wooden posts and post-pits is discussed, and also the use of mudbrick.

A three-dimensional computer reconstruction of the shipshed complex is illustrated, and some particular aspects discussed (lighting and drainage of water from the roof). The reconstruction preferred has a separate stepped ridged roof over shipsheds 1–2 and 3–4.

Οι Νεώσοικοι στη Νάξο Σικελίας: Δεύτερη προκαταρκτική έκθεση (2003–2006)

Η παρούσα ανακοίνωση παρουσιάζει τα αποτελέσματα της δεύτερης και κύριας ανασκαφικής περιόδου. Τα όρια που καθορίστηκαν στον ανασκαφικό χώρο ήταν: ένα κτίριο μνημειακής αρχιτεκτονικής με τέσσερα

στεγαζόμενα νεώρια ή νεωσοίκους, το οποίο βρίσκεται πλευρικά σε ένα άλλο μεγάλο δημόσιο κτίριο, κατά πάσα πιθανότητα την αγορά. Τα αρχικά συμπεράσματα που βασίζονται στις ανασκαφές του 2001 στο βορειότερο νεώσοικο (BSA 2003) μπορούν να συμπληρωθούν και να τροποποιηθούν.

Η απροσδόκητη ανακάλυψη ήταν τα κεκλιμένα επίπεδα (ράμπες) από άμμο, τα οποία επιστρώθηκαν ξανά αρκετές φορές κατά τη διάρκεια του δεύτερου μισού του 5ου αιώνα. Οι νεώσοικοι 3-4 παρείχαν ενδείξεις δύο αρχιτεκτονικών φάσεων, με τους οπίσθιους και πλαϊνούς τοίχους μετακινημένους προς την πλαγιά του λόφου και τα κεκλιμένα επίπεδα να καταλήγουν τώρα σε μία ανωφερική καμπύλη.

Η ύπαρξη μίας πρωιμότερης φάσης στο νεώριο, που είχε ήδη επισημανθεί το 2001, επιβεβαιώθηκε. Της ύστερης στέγης κορινθιακού τύπου χωρίς διακόσμηση (δεύτερο μισό του 5ου αιώνα) προηγήθηκε μία στέγη του ύστερου δου-πρώιμου 5ου αιώνα π.Χ., η οποία πιστοποιήθηκε ειδικότερα από μία εντυπωσιακή σειρά από ακροκέραμα, με μορφές Σειληνών και Γοργόνεια, τα οποία βρέθηκαν σε κάθε νεώσοικο, με μια ιδιαίτερη συγκέντρωση στους νεωσοίκους 2 και 3, όπως επίσης και από έναν αριθμό άλλων πήλινων αρχιτεκτονικών μελών (περιγράφονται στον κατάλογο). Το ανασκαφικό περιβάλλον (context) δείχνει ότι αυτό το υλικό προέρχεται από την ίδια στέγη, υποδεικνύοντας τον πολύ ασυνήθιστο συνδυασμό ακροκεράμων με προσωπίδες Σειληνών και Γοργόνεια.

Τα υπόλοιπα ευρήματα συζητώνται με μεγαλύτερη συντομία. Υπολείμματα ερυθράς και κυανής χρωστικής δείχνουν ότι η βαφή των πλοίων γινόταν στους νεωσοίκους. Ευρήματα κεραμικής παρέχουν αξιόλογες ενδείξεις κατανάλωσης ποτού· το ίδιο υποδηλώνουν και ορισμένα ακκιδιογραφήματα (graffiti), ενώ άλλα, είναι ίσως όστρακα προς χρήσιν σε κάποια εκλογική διαδικασία (ενδεχομένως οστρακισμό). Ένας αριθμός διεσπαρμένων αιχμών βελών και λίγες αιχμές ακοντίων έχουν βρεθεί στους χώρους εργασίας των κεκλιμένων επιπέδων.

Η θεωρία που διατυπώνεται αφορά στους νεωσοίκους ως μνημειακή αρχιτεκτονική με ορισμένα ιδιαίτερα σικελικά χαρακτηριστικά. Εξετάζεται και συγκριτικό υλικό για την χρήση ξύλινων πασσάλων και πασσαλο-οπών, όπως επίσης και η χρήση ωμοπλίνθων.

Απεικονίζεται, ακόμη, μία τρισδιάστατη ηλεκτρονική αναπαράσταση του συγκροτήματος των νεωσοίκων και εξετάζονται ορισμένα ιδιαίτερα χαρακτηριστικά (ο φωτισμός και η απορροή του νερού από τη στέγη). Η αναπαράσταση που προτιμήθηκε παρουσιάζει μία ξεχωριστή, βαθμιδωτή, δίρριχτη στέγη πάνω από τους νεωσοίκους 1-2 και 3-4.

RUNNELS, Curtis

George Finlay's Contributions to the Discovery of the Stone Age in Greece

In 1869, the historian George Finlay published a small pamphlet in Greek, entitled *Παρατηρήσεις επί της ἐν Ἑλβετία καὶ Ἑλλάδι Προϊστορικῆς Ἀρχαιολογίας* (*Observations on Prehistoric Archaeology in Switzerland and Greece*), describing the discovery of Neolithic artefacts from Greece. This pamphlet is largely forgotten today, and the discovery of the Greek Stone Age is usually accorded to twentieth-century prehistorians (see e.g. Tsountas's excavations at Sesklo and Dimini). This article discusses Finlay's publication, and presents for the first time the transcription of the original English manuscript, upon which *Παρατηρήσεις* (*Observations*) was based. This material sheds light on the early stages of Aegean prehistory, and especially of Finlay's pioneering role.

Η συνεισφορά του George Finlay στην ανακάλυψη της εποχής του λίθου στην Ελλάδα

Το 1869, ο ιστορικός George Finlay δημοσίευσε στην ελληνική γλώσσα ένα ευσύννοπτο φυλλάδιο, με τον τίτλο «Παρατηρήσεις επί της ἐν Ἑλβετία καὶ Ἑλλάδι Προϊστορικῆς Ἀρχαιολογίας», όπου περιέγραφε την ανακάλυψη στον ελλαδικό χώρο ευρημάτων του Νεολιθικού πολιτισμού. Το φυλλάδιο αυτό έχει γενικώς σήμερα ξεχαστεί, ενώ η ανακάλυψη της εποχής του λίθου στον ελλαδικό χώρο, κατά κανόνα ταυτίζεται με του μελετητές της ελληνικής προϊστορίας, οι οποίοι έδρασαν τον 20ο αιώνα (βλέπε ανασκαφές Τσουντα στο Σέσκλο και το Διμήνι). Το εν λόγω άρθρο πραγματεύεται τη δημοσίευση του Finlay και παρουσιάζεται για πρώτη φορά η μεταγραφή του πρωτοτύπου αγγλικού κειμένου, επάνω στο οποίο βασίστηκαν οι παρατηρήσεις. Το υλικό αυτό διαφωτίζει τα πρώιμα στάδια της Αιγιακής προϊστορίας, αναδεικνύοντας συγχρόνως τον πρωτοποριακό ρόλο, που διαδραμάτισε ο Finlay.

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PETER FRASER MA, MC, FBA (1918–2007)

PETER FRASER (FIG. 1), Director of the School from 1968 to 1971, and a Hellenistic historian and epigraphist of international distinction, died in Oxford on 15 September 2007 aged 89. Born on 6 April 1918, he was brought up in Carshalton and went to City of London School; like many great classical scholars he owed much to an early teacher. The preface to his revision of Rostovtzeff's *Social and Economic History of the Roman Empire* (1957, p. ix) acknowledges the help of this teacher, Mr H. C. Oakley, who compiled the index of names and subjects.

Despite his metropolitan upbringing, Fraser was proud to be a highland Scot: he always liked his malt whisky, and would serve in the Seaforth Highlanders in the war. As a young undergraduate at Brasenose in the 1930s, he met William Woodthorpe Tarn, a formative meeting because it pointed him in the direction of the Hellenistic age. He took Classical Mods in 1939, but never completed his undergraduate course by taking Greats, because of the outbreak of war.

Fraser was one of that heroic generation of classical scholars and ancient historians whose love of Greece and the Greeks was formed during active service in German-occupied Greece in the Second World War. But he was unusual, even among that outstandingly talented group, in his superlative command of the modern Greek language, spoken and written. He was also unusual in his later reticence about his wartime experiences: he wrote no autobiographical memoir covering that or any other period, apart from the analytical narratives provided in his typed reports back to the War Office in London. But he was, at least towards the end of his life, willing to speak to genuine researchers such as Mark Mazower, whose book *Inside Hitler's Greece* (1995, p. xix) lists Fraser among those willing to be interviewed or questioned. And, six months before he died, he gave an interesting recorded interview about his wartime service.¹ But in *Ανασκαφές* (1989), the entertaining informal collection of reminiscences of the School over the half century or so before its centenary in 1986, there is no contribution by Fraser. Indeed, the three-year Fraser Directorship is completely invisible in that volume, and his name is mentioned just once anywhere, in the course of Nicholas Hammond's chapter on 'The School at War' (1989, 22). Here, in a paragraph about students of the School who played a leading part in the Allied Military Mission to Greece, Hammond wrote of Fraser, Tony Andrewes, and the Australian-born Eric Gray (tutor in ancient Roman history at Christ Church, and an Asia Minor specialist) as the three who were active in the Peloponnese. The last two were both born in 1910, and died within a few weeks of each other in summer 1990; Fraser (1990) wrote Gray's obituary in the *Independent*, where he described his work with the partisans in the Mt Panachaikon region south of Patras.

For some archaeologists, ancient historians, and classicists, the war was the intrusion of another and entirely different sort of life, after which they returned to more or less placid and bookish normality: one thinks of some of the Bletchley code-breakers. In complete contrast, several of Fraser's later areas of scholarly interest can be traced directly to the years of and

¹ Fraser's son Alexander kindly made available to me a CD recording of this interview given by his father,

probably to an army man, in April 2007. I am not aware of any public broadcast of this interview.

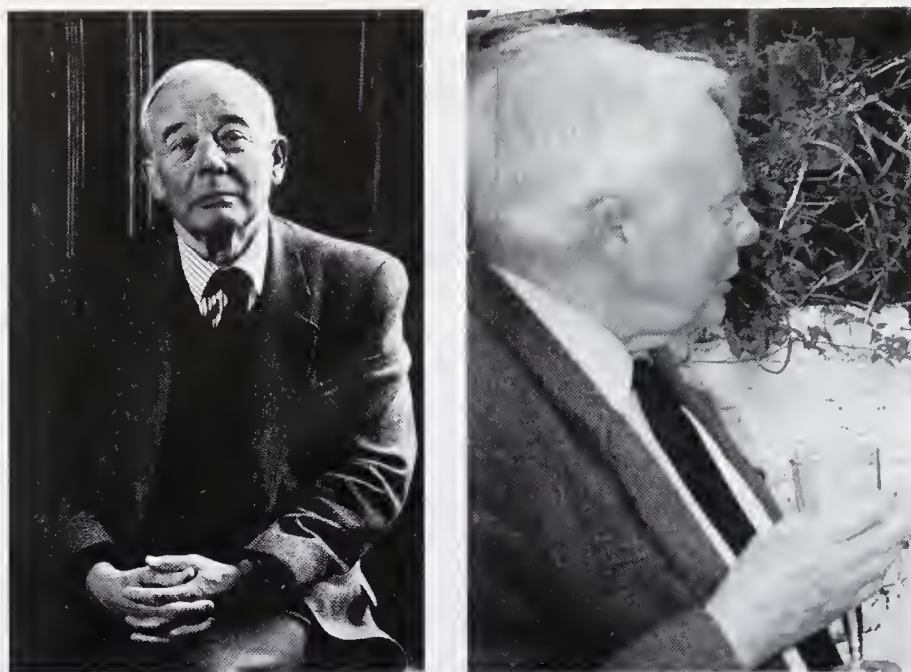


FIG. 1. Peter Fraser (1918–2007), Director of the British School at Athens (1968–1971);
 a) in a 1980s photograph, courtesy of the Warden and Fellows of All Souls College, Oxford;
 b) in a recent photograph, taken at the author's 50th birthday party

immediately after the war. His life was an exceptionally eventful and varied one, but in this respect it formed a continuum. The moment of decision, which changed his entire future existence by making it Greece-dominated, came in late 1942. He had served with his regiment in north Africa at the battle of El Alamein, after which he was in hospital in Cairo. There the military authorities, who clearly knew his educational background, asked him if he would be interested in going behind enemy lines in Greece. When he said 'Yes', he was sent to Palestine, then a British mandate, for general training (parachuting and so forth), and afterwards to Alexandria, where he lived with a Greek hotel-owning family and learnt the language. Here was the germ of an interest which flowered, most obviously, in the three volumes of *Ptolemaic Alexandria*, his most considerable single-authored achievement, but also in the regular bulletins which he contributed to the *Journal of Egyptian Archaeology*, in the 1978 revision of A. J. Butler's *Arab Conquest of Egypt*, and in an article 'Byzantine Alexandria: Decline and Fall', published half a century after the war and his first encounter with the city (Fraser 1995).

He was parachuted into Greece in the summer of 1943, and worked initially in western Messenia. The purpose of his operation was to find and then to arm non-ELAS, i.e. non-communist, officer bands of *andartes*. He succeeded in finding them, but not in arming them, because ELAS prevented this, and because, as he later put it, most of their propaganda in the area was turned against him. In later life he was not a man of the left, and it is reasonable to conjecture that his politics were profoundly affected by what he saw and suffered at that time. He once remarked 'I estimate our contribution to the war effort as *nil*', where 'our' was Special Operations Executive. But this bitter remark should not be taken as objective or final assessment (he was in any case given to making contradictory utterances at different times),

but as an expression of personal disenchantment with the obstructions put in the way of his mission by local groups opposed to those he was working with. He did after all succeed, together with his *andartes* colleagues, in blowing up the aerodrome near Argos, and was awarded the Military Cross for this and for ‘long and difficult negotiations in occupied Greece’. After this (1944), he ran a caique base on the Pelion coast in Thessaly, bringing in arms from Asia Minor; at the end of the war he was in effective charge of Volos. He was just 27 when the war ended. It is a shock to remember how young he was when he sent his 1945 comments on the Greeks and Greece to the War Office. Reading them, one can almost hear the voice—tired, distinguished, and decisive—of the elderly Fraser who gave the aforementioned interview six months before he died (cf. above, n. 1).

After these dangerous and demanding two years of war behind enemy lines, the story goes that he was given some advice at the British School by a student who had no idea about his immediate past, and warned him to be sure to take precautions against unexpected changes of weather when travelling in Greece. This must have been shortly after the School reopened under the Directorship of John Cook.

Fraser’s professional situation at this time was more precarious than that of Major Andrewes or Captain Gray, who were eight years older, a crucial age difference which meant that they had got started in academic life before the war, and thus had secure Oxford tutorial fellowships to return to—indeed Andrewes was elected Wykeham Professor of ancient Greek history in 1953. Fraser took a war degree (i.e. was given an MA with dispensation from final examinations) and held a senior scholarship at Christ Church for a year, presumably through Gray’s influence, and then had a short term teaching job at Balliol. Here he taught, among others, Brian McGuinness, a future philosopher and biographer of Wittgenstein, who recalls that ‘we knew he had been parachuted into some of the places he was teaching us about’. Even when he became university lecturer in Hellenistic history (1948) he had no permanent college attachment until his election to a fellowship at All Souls in 1954. His college for most of the post-war period was Brasenose, and here too he did some teaching: two remarkably bright Greek historians and School students called George Forrest and Robert Wade-Gery (one of them a future Wykeham professor and the other a son of the then Wykeham Professor) were among his pupils. It was lucky for Fraser that the Camden Professor of Roman history is automatically attached to Brasenose, and that his warm supporter and patron Hugh Last was Professor until 1949 and Principal of Brasenose thereafter, until his death in 1957. Fraser never forgot this debt of gratitude, and was to contribute Last’s entry to the *DNB*; it survives in the new *Oxford DNB* (Fraser 2004). The entry is of interest as giving Fraser’s own view of the most important qualities of a historian, qualities which Last had lost in the latter part of his career: ‘a lively historical imagination and a lasting creative vein’. He adds that Last was most successful as a supervisor of young graduate students, and excelled in ‘determining suitable subjects of research’.

During these early years, when he was establishing himself in post-war Oxford, Fraser continued to visit Greece and the islands, as well as Alexandria, and worked intensively on inscriptions every summer. In this way he did the work for *Samothrace: the Inscriptions on Stone* (1960, but handed to the publisher in 1958, and the result of work over several years before that) and *Boiotian and West Greek Tombstones* (Fraser and Rönne 1957). He was drawn especially to Rhodes and the rest of the Dodecanese, and it must be relevant that this region was the last to be ceded to the Greek state (1948). After the Italian and then the German forces left,

Rhodes was under British occupation for a period (1945–7) and Fraser was surely quick to exploit this opportunity. His first published book, *The Rhodian Peraea and Islands* (1954), was joint-authored with George Bean, professor at Istanbul in succession to Ronald Syme, but it had been preceded by a series of articles on Rhodes and Kos by Fraser alone (1953a, 1953b) and by his 1951 dissertation on Rhodian history and epigraphy, surely embarked on not long after the war. He never published this, or even supplicated for a doctorate with it (nor did he refer to it in print as far as I have been able to discover), but instead entered it successfully for the prestigious Conington Prize of Oxford University. Fraser's Rhodian involvement, which continued into and beyond the period of his Directorship of the British School at Athens and resulted in an article in the *Annual* (Fraser 1972b), crossed the boundaries between history, epigraphy, and archaeology (*Ptolemaic Alexandria*, 1972a added literature as well). He was always alert to material evidence, as witness the revision of Rostovzef (see above). The most archaeologically slanted of his Rhodian publications was *Rhodian Funerary Monuments* (1977), for which he did some of the work when Director; but like its mainland Greek counterpart and predecessor on the Boiotian tombstones (Fraser and Rönne 1957), it contained a heavy epigraphic component. He once remarked that a Director of the School needs to have an excavation or similar project in order to avoid turning into a full-time administrator, and the Rhodian book was perhaps his equivalent of an excavation.

The rest of the Dodecanese was not neglected. Susan Sherwin-White's *Ancient Cos* (1978) began life as a Fraser-supervised Oxford DPhil thesis; she graduated in the year that Fraser became Director, and did some of the work for the thesis as a student at the School. Other Fraser protégés in this period, whose publications gave the School's *Annual* a welcome epigraphical and post-classical flavour for a while (Allen 1971, Osborne 1971), were Michael Osborne from Oxford (*Naturalization in Athens*, 1981–3, was a Leuven thesis, but examined by Fraser) and Robert Allen of UCL (*The Attalid Kingdom*, 1983, was supervised by Fraser). Allen (2007) contributed a supplementary note to Fraser's obituary in the *Independent*, in which he wrote of his Directorship that it was a 'rare privilege to have known him then. As well as learning much about Greece—ancient and modern—I appreciated his many other skills, including a formidable talent at table tennis'. For an appreciation of Fraser's time as Director, see Peter Warren's memoir (Warren 2008) in the *British School at Athens Annual Report of Council for the Session 2006–2007*. The present writer's personal acquaintance with Fraser began in 1971, his very last year as Director. But even in the decade after 1979, when the team of Catling, Spawforth, and Hornblower lectured to the teachers' course in the spring, the Fraser-donated toaster was still functioning bravely in the breakfast room in the Hostel. One always knew when there was a fresh arrival from the UK because of the reek of burnt toast throughout the building.

Fraser's Directorship was relatively short. He combined it with his university post (he had been promoted to a Readership in 1964), rather than being on secondment like many directors of foreign schools, and this was not a situation which could be prolonged indefinitely, and was only possible because at Oxford he did not have responsibility for undergraduates, but taught via a memorable series of graduate seminars, which could be shuffled through the year. In fact, Fraser seems always to have liked to have more than one job on the go at any one time, one administrative and one academic. This (I suggest) is one important key to his character and career; it indicates a certain restlessness and impatience with a purely scholarly routine, and is perhaps to be attributed to the divided demands made

by the war, when he surely became conscious that his gifts went far beyond what could be done in a library. The Warden of All Souls for most of his time there was John Sparrow, who was fond of observing that dons could be divided into two categories, those who could have been something other than dons, and those who could not. Fraser definitely belonged to the first category. Even on the small Oxford stage, he served the university as Junior Proctor, and his college as domestic bursar, and later as a conspicuously successful and popular Acting Warden (in the 1980s, when Warden Neill was Vice-Chancellor).

Two of his large-scale undertakings of the 1970s, both of which originated in the years immediately after the end of the Athens Directorship, can be explained, at least in part, by this correct conviction that he had something more than books to give the world. Both projects differed from the British School and All Souls, which were established institutions, in that they were entirely new creations of his own. They are the most conspicuous testimony to his vision and collaborative genius.

The first was the Society for Afghan Studies, of whose Managing Committee he was Chairman from 1972 to 1982. In this capacity he was the directing mind behind the excavations at Old Kandahar, and he visited Afghanistan more than once: a memorable month-long visit in autumn 1978 with the Boardmans and others took in Balkh, Bamiyan, Helmand province, and Jalalabad, as well as Kandahar. The Institute in Kabul was housed in the former embassy hospital, and one dined in the old operating theatre. The excavations at Kandahar (Alexandria in Arachosia) produced a Greek epigraphic find of great interest, which Fraser published in the short-lived journal *Afghan Studies* (Fraser 1979b and cf. 1982 for another intriguing far eastern item). Even when the Soviet Russian invasion of late 1979 brought excavations to an end, Fraser continued his academic work on the ‘Greek far east’, work which culminated in his outstanding book *The Cities of Alexander the Great* (1996). This studied the evidence (including Arabic texts and even Chinese material, in translation) for Alexander’s city-foundations, and suggested that the inflated numbers which have come down to us in the literary traditions can be hypothetically traced to tendentious Ptolemaic re-allocation to Alexander, and restyling as Alexandrias, of cities really founded by the Seleucids. It is quite something to have published so original and radical book when nearly 80.

The other huge post-Athens undertaking was the *Lexicon of Greek Personal Names*, of which he was the only begetting parent, and then for more than three decades the controlling intellect; this too began in the early 1970s. By the time of his death, five physical volumes had been published over the two decades since 1987 (Fraser and Matthews 1987–), under the auspices of the British Academy, which in 1973 accepted Fraser’s arguments for the *Lexicon*’s adoption as one of its Major Research Projects. He chose to set out his manifesto in *Tribute to an Antiquary*, the Festschrift for Marc Fitch, a great School benefactor (Fraser 1976). Here he explained how the *Lexicon* would facilitate the work of the social and religious historian of ancient Greece, as well as illuminating the development of the Greek language. Two special volumes of the Academy’s *Proceedings* showed what could be done in this regard, by publishing the papers of two international conferences devoted to Greek personal names as evidence (Hornblower and Matthews 2000; Matthews 2007). The twentieth century saw other great names in ancient Greek epigraphy, on continental Europe and the United States, but it is safe to say that only Fraser had the combination of vast scholarly knowledge on the one hand and administrative capacity on the other—including fund-raising ability and charm, especially directed at Greek individuals and financial institutions—required to make a success of the

Lexicon. The formidable Louis Robert (died 1985) was sceptical about the possibility of the *Lexicon* but was comprehensively proved wrong. He may, however, have contributed in an indirect way to the idea of the project. In a caustic review of the Samothrace inscriptions in *Gnomon*, Robert (1963, 77 = 1969–90, v. 616) had observed by way of reproof that history is also found in ‘banal’ inscriptions, and that personal names have a historical interest. Applied to the Fraser of the *Lexicon* phase, the criticism would be absurdly misdirected. The difference between the two Frasers can perhaps be explained by the principle *fas est et ab hoste doceri*.

As late as the end of 2003, Fraser visited Thessaloniki for a conference at which he read a paper about the *Lexicon*, and memorably enjoyed the social side of the weekend: visits to Greece always knocked decades off his age. He went on working on the *Lexicon*, unpaid as always, until within a fortnight of the end. Meanwhile he had, in 2006 and at the age of 88, finished what he knew would be his last book, *Greek Ethnic Terminology*, a study of the sources of Stephanus of Byzantium (Fraser, forthcoming). It is entirely appropriate that this too is to be published as an Academy monograph, because he saw it as an adjunct to his main work on the *Lexicon*. His remarkable 2003 article ‘Agathon and Kassandra’—a study of a most unusual inscription from Dodona recording a proxeny—hints, on its final page, at what he used—in his 80s!—to speak of as his ‘next project’, alas never formally started. It was to be a commentary on the *Alexandra* of Lycophron, a poem dear to his heart. In the *Report of the Department of Antiquities, Cyprus* 1979, a special issue commemorating two old friends, V. Desborough and T. B. Mitford, he proposed a radical new solution to the dating problem, by a detailed examination of the sources for the Cypriot excursus at ll. 447–591 (Fraser 1979a).

He was elected FBA in 1960, and an honorary degree was conferred on him by La Trobe University, Melbourne, in 1996, where Michael Osborne was Vice-Chancellor. His contribution to the academic (and more than academic) life of Greece was pleasingly marked by an honorary degree from the University of Athens (2002) and by election as a Foreign Member of the Athens Academy (2003). By his own wish, his ashes have been buried in the Commonwealth War Graves cemetery on Kephallonia. He was a great scholar, a much-valued friend, and a man who had ‘heard the chimes at midnight’.

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GEORGE FINLAY'S CONTRIBUTIONS TO THE DISCOVERY OF THE STONE AGE IN GREECE¹

European scholars, as well as the general public, were excited in the 1860s by the dramatic discovery of the antiquity of man in the form of rude flint artefacts in the river terraces of north-western France, the Neanderthal cranium from Germany, and Ferdinand Keller's excavations of Neolithic lake dwellings in Switzerland (Trigger 1989, 83–102). In what seems a very brief period of time, belief in the young age of the earth or the special creation of human beings was abandoned, and the great antiquity of the Stone Age that preceded the later and more familiar ages of Bronze and Iron was accepted (Van Riper 1993, 1–14). The discovery of stone tools and human remains in ancient geologic contexts was described in lectures before learned societies and was published in specialized journals. Newspapers kept the public informed of new discoveries. The early stages of human prehistory became more widely known when Sir John Lubbock published a summary of current scholarship in his *Pre-Historic Times* in 1865. Lubbock's popular book went through seven editions and was the first to use the terms 'Palaeolithic' and 'Neolithic' to describe the divisions of the Stone Age. *Pre-Historic Times* was translated into other European languages and made a convincing case that Palaeolithic and Neolithic remains (the Mesolithic was not recognized as a separate division until the 1870s) were to be found in many parts of the world. Research developed quickly in the last decades of the nineteenth century and excavations of both Palaeolithic and Neolithic sites were undertaken throughout Europe.

The enthusiasm for prehistoric research in the late nineteenth century extended from southern Europe to the Mediterranean, from the painted Palaeolithic caves of Cantabria to the Swiss lake dwellings and the Neolithic settlements of the Po Valley, to Palaeolithic sites on the Adriatic coast (Schnapp 1996, 277–314; Grayson 1983, 168–220; Lubbock 1865, 119–70, 268–334; Stevens 1870, 112–18). When one considers the widespread interest in prehistory, and the rapid development of archaeological research, it is curious that Greece was not among the lands where early research on the Stone Age took place (Runnels 2003). The systematic investigation of the Stone Age of Greece began only in the early twentieth century with Christos Tsountas's excavations at Neolithic Sesklo and Dimini in Thessaly, Evans's excavation of Neolithic remains at Knossos (and the Italians at Phaistos), Adalbert Markovits's explorations of the Neolithic and Upper Palaeolithic in Ulbrich Cave in the Argolid and Zaimis Cave in the Megarid, and Rudolf Stempfuss's excavation of the Upper Palaeolithic site of Seidi Cave in Boeotia (Runnels 2001; Weinberg 1970).

The generation-long delay in the exploration of Stone Age Greece is remarkable. This lag

¹ I should like to thank Daniel Pullen, who first brought Finlay's *Observations* to my attention and made it possible for me to acquire a copy of this work. Michalis Fotiadis's research on the history of Aegean prehistory before Schliemann has been an inspiration to me, and his generous sharing of his understanding of the reception of Finlay's pamphlet by contemporary European scholars was very valuable. Fotiadis's research will do much to

throw light on this early period of prehistoric archaeology in Greece. I should also like to thank the editor of *BSA* and two anonymous reviewers for their useful suggestions for improving an early draft of this manuscript. Finally, it is a great pleasure to acknowledge the contributions of Priscilla Murray, who laboured on the transcription of Finlay's manuscript and with whom I often discussed Finlay and the significance of his research.

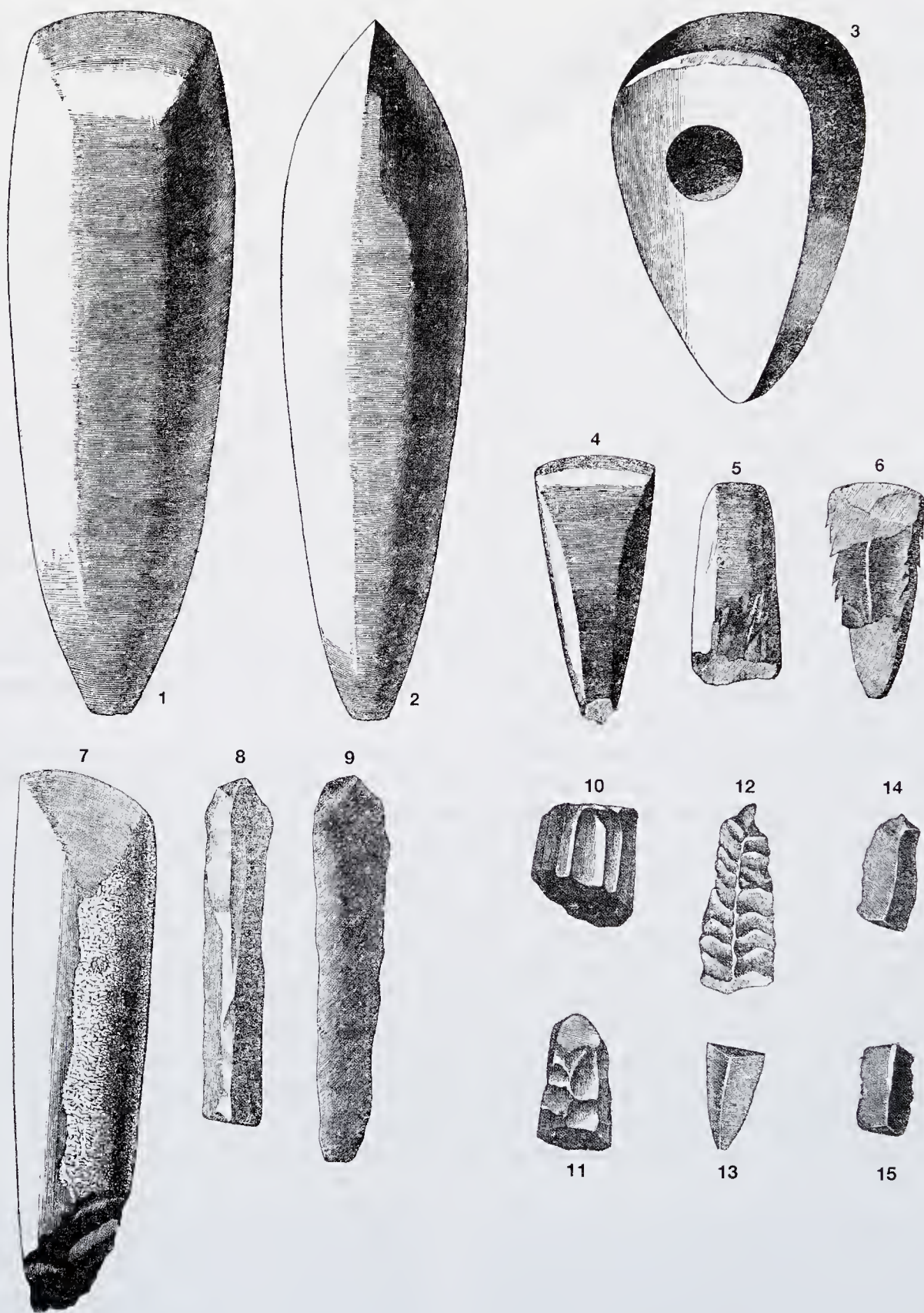


FIG. 1. Woodcut illustrations of stone artefacts published in Finlay's *Observations* (1869)

is particularly hard to explain in the light of the publication of a small pamphlet in Athens in 1869 by George Finlay that set forth clearly the evidence for a Greek Stone Age (specifically the Neolithic). One might think that Finlay's monograph, *Παρατηρήσεις ἐπὶ τῆς ἐν Ἑλβετία καὶ Ἑλλάδι Προϊστορικῆς Αρχαιολογίας* (*Observations on Prehistoric Archaeology in Switzerland and Greece*), would have had the same effect in Greece as Lubbock's *Pre-Historic Times*, but it did not. Finlay's *Observations* described the new prehistoric discoveries in Europe, with special emphasis on the Neolithic Swiss lake dwellings, which were at that time in the public eye, and included descriptions and illustrations of his own extensive collection of stone tools from Greece, which included flint and obsidian chipped stone artefacts and polished stone axes collected by himself or acquired from travellers. The woodcut illustrations of the artefacts from his collection, which came from virtually all parts of Greece, were large in scale and accurately depict the appearance of both flaked and ground stone tools. Finlay noted their similarity to Neolithic materials being excavated in Switzerland, and although we recognize today that some of Finlay's stone tools were not Neolithic but Bronze Age types, he nevertheless made a strong case for the existence of a Greek Neolithic. In addition to describing the stone tools, Finlay made a compelling case for regarding certain Greek regions (e.g. Lake Copais in Boeotia or Mantinea in Arcadia) as likely places where sites similar to the Swiss lake dwellings would be found. The correctness of his reasoning has been vindicated, incidentally, by the recent excavations at the Neolithic site of Dispilio near Kastoria in northern Greece, a lake-shore village built on pilings similar to the Swiss lake dwellings in a location predicted by Finlay (Hourmouziadis 1996).

In contrast to Lubbock's *Pre-Historic Times*, a large and heavily illustrated book, *Observations* is a small pamphlet. It is a small octavo with a title page, a dedication page, text paginated from 5 to 22, followed by seven pages that collate as follows: corrigenda, a blank, a separate title page for the figures ('Objects Found in Greece/in the collection of/George Finlay' in English and Greek), and 15 woodcuts illustrating stone tools on four pages, with captions. As noted elsewhere, these are possibly the 'first flaked stone artefacts from Greece to be recognized as such and illustrated accurately in a scientific publication' (Runnels 2003, 186). The figures, with my identifications (FIG. 1, also reproduced in Runnels 2003), include a celt (polished axe) from Dobrena near Thisbe in Boeotia (FIG. 1, 1–2), a shaft-hole axe from Tanagra of Early Bronze Age type (FIG. 1, 3), a black celt from Orchomenos in Boeotia given to Finlay by Mr. Merlin (FIG. 1, 4), a broken celt from Dobrena (FIG. 1, 5), a pure copper celt found in Euboea and given to Finlay by Mr. Frank Noel (FIG. 1, 6), a celt from Piraeus (FIG. 1, 7), two obsidian blades from Ios purchased by Finlay in 1837 (FIG. 1, 8–9), two obsidian cores from Agios Kosmas in Attica of Early Bronze Age types (FIG. 1, 10–11), an obsidian crested blade from the same site (FIG. 1, 12), an obsidian flake from the Argive Heraeion (FIG. 1, 13), and two obsidian blade fragments, one distal and one medial, from the Marathon Soros collected by Finlay in 1836 (FIG. 1, 14–15).

Apart from an appreciative account of Finlay's collection in 1872 by M. A. Dumont, who summarized the significance of Finlay's contribution thus 'que l'âge de la Pierre polie se retrouve dans toute la Grèce' (Dumont 1872, 9), there are but few references to Finlay's collections or his *Observations* in the works of contemporary European scholars (e.g. Stevens 1870, 112–18). To judge from the lack of effect, that is to say the long interval between the publication of *Observations* and the beginnings of systematic prehistoric excavation and exploration in Greece in the first decades of the twentieth century, it seems that Finlay's

pamphlet was little noted and soon forgotten. If it had fallen on fertile ground, prehistoric studies in Greece would perhaps have begun some forty years earlier and Finlay would rightly be accorded the honour of being the first Greek prehistorian. The possible reasons for its going unnoticed will be discussed below.

Finlay wrote his manuscript in English and paid to have it translated into Greek. His fair copy is found among his papers in the archives of the British School at Athens (Hussey 1973, box C6). In light of the relative unavailability of the published Greek text of *Observations*, I have transcribed Finlay's manuscript, which is published here for the first time. It is my hope that the publication of this transcription may help to throw light upon a hitherto forgotten episode in the history of Aegean scholarship.

Finlay appended a note to the manuscript in the archive remarking that the translator had made changes to his manuscript in the process of translating it into Greek for publication. My comparison of the published Greek text with the English manuscript shows that these changes consist of omissions, as when six lines from the manuscript concerning Dr Uhlmann's memoir on fauna are omitted on p. 15 of the published text from the end of the first paragraph, or when a line in the manuscript ('the existence of a numerous race of people in Greece who used stone instruments') is omitted in the second paragraph on the same page. At other places words were added or there were deviations in wording or in the rendering of names from the English manuscript. Such textual differences make it essential that scholars have a transcription of Finlay's manuscript in order to examine Finlay's thoughts on the Greek Stone Age.

A philhellene, historian, and a man of political affairs, Finlay was resident in Athens from 1823 until his death in 1875 (Traill 1997). Remembered chiefly as the historian of medieval and modern Greece and the Greek War of Independence, Finlay was a polymath with wide interests in archaeology and natural history. It was he, for instance, who discovered the fossil beds of Pikermi in Attica. Equally forgotten is his contribution to archaeology. In 1833 he began to assemble a collection of prehistoric artefacts that eventually grew to 730 items (many of which are found in the collections of the Archaeological Society in Athens). His growing collection prompted him to correspond with leading European authorities in the new field of archaeology, including Ferdinand Keller, Sir John Lubbock, and Sir John Evans, and to exchange collections of representative antiquities with these men and with scientific organizations to facilitate the building of study collections in Greece and abroad. Among the institutions to receive collections of Greek Stone Age artefacts from Finlay were the Christy Museum in London, the Society of Antiquaries of Zurich in Switzerland, and the Royal Society of Northern Antiquaries in Copenhagen. In return, Finlay received five Lower Palaeolithic handaxes from Lubbock, which he presented to the Archaeological Society in Athens, and he arranged for other gifts, such as a collection of Danish flint implements from the Royal Society of Northern Antiquaries, also donated to the Archaeological Society in Athens.

The publication of *Observations* in Athens in 1869 was the result of years of collecting and correspondence beginning in 1833 when Finlay first saw obsidian artefacts on the surface of the Soros at Marathon. After examining the obsidian artefacts and their context, he concluded that they were not arrowheads used by the Ethiopian contingent of the Persian army, the usual explanation made by a succession of European travellers to the spot, but instead that the obsidian artefacts were part of the soil heaped up for the tumulus, soil which had been taken from a prehistoric site in the area. Finlay collected other obsidian artefacts in Hydra in 1837, which he recognized as prehistoric, and about this time began to add celts (polished stone axes, adzes, and similar tools, both Neolithic and Bronze Age in date) to his

collection. His collection increased in size rapidly as he began to receive gifts from travellers and learned correspondents, both Greek and foreign. By the time he donated his collection to the Archaeological Society in Athens, he had accumulated prehistoric artefacts from virtually every part of Greece.

The excitement that greeted the discovery of human antiquity in the 1860s was clearly the impetus for Finlay to write *Observations* and publish a Greek translation. He was aware of the progress of archaeology in Europe, particularly Keller's excavations of Neolithic lake dwellings in Switzerland. In addition to Finlay's correspondence and reading, he travelled to inspect museum and private collections of antiquities, and visited excavations that were in progress in Switzerland in 1868. He appreciated the significance of his own collection of antiquities and the publication of *Observations* was intended to draw attention to the prehistoric nature of the Greek artefacts.

But why did Finlay have his manuscript translated into Greek, particularly the formal and scholarly dialect (*katharevusa*) of this pamphlet? Although Finlay paid to print copies of the translation, he was surely aware that it was unlikely that this publication would reach many readers outside of Greece and probably not very many within Greece. The likelihood that the pamphlet did not circulate widely outside Greece, as well as the use of fragile paper wrappers as covers (I have seen both yellow and green printed wrappers, both variants thin and fragile), may help to account for the scarcity of this publication today. WorldCat lists only four copies in libraries around the world, although this total does not include copies in the American School of Classical Studies and in the British School at Athens. That the pamphlet had few readers is confirmed by my own, admittedly limited, survey of four copies of the pamphlet in the American and the British Schools at Athens, and two in my possession, all fresh and crisp with no signs of having been read or annotated. References to *Observations* in the writings of prehistorians in subsequent decades are also rare. When research on the Greek Neolithic began early in the twentieth century, it was largely under the inspiration of Christos Tsountas, who cites *Observations* only once (Tsountas and Mannatt 1897, 329), as far as I know, in connection with Finlay's predictions of finding lake dwellings on Lake Copais. It is unlikely that Finlay's contribution was entirely unknown, however, to the first generation of Aegean prehistorians. Wace and Thompson, for instance, have a dedication at the beginning of their *Prehistoric Thessaly* that reads 'To the Memory of George Finlay/Historian of Greece/and/One of the first Students of the Prehistoric/Remains of that Country' (Wace and Thompson 1912). Although this is a clear acknowledgement of Finlay's influence, there is nothing in the following text that is taken from Finlay, and there is no reference to *Observations* in the notes or bibliography.

Many prehistorians omitted any reference to Finlay or *Observations*. The American prehistorian Hazel Hansen claimed that 'prehistoric Thessaly came to the attention of scholars in 1884 when H. G. Lolling, a German scholar, published the first article on the subject, by calling attention to the mounds of that region' (Hansen 1933, 1). Another American prehistorian, Saul Weinberg, made a more sweeping acknowledgement of discovery, stating that 'the existence of a Neolithic culture in the Aegean area was first recognized during the opening years of this century—at Dhimini and Sesklo in Thessaly by Staïs and Tsountas, in the regions of Elatea and Chaeronea (in Phocis and Boeotia respectively) by Soteriades, at Boeotian Orchomenus by a Bavarian expedition, at Cnossus in Crete by Evans' (Weinberg 1970, 557). Konstantinos Gallis attributed the discovery of the Neolithic entirely to Christos

Tsountas, who began his Neolithic research in Thessaly in 1889. According to Gallis, Tsountas's 'first excavation was at Marmariani [where he] excavated five small Mycenaean tombs [and] while digging these tombs at Marmariani, Tsountas noticed, scattered on the surface of the mound, stone tools, bone needles and sherds which seemed to be much earlier than Mycenaean. He was in position to appreciate the importance of these finds and to point out that they ought to belong to the Neolithic, a period which was already known elsewhere in Europe and which now appeared to exist in Greece also' (Gallis 1979, 3).

To understand why Finlay had little impact on the prehistoric archaeology of Greece it is necessary to consider his motives for publishing *Observations*, especially his decision to have it translated into Greek. Finlay gives his reasons for having the translation made in a letter to the editor of the *Athenaeum* in London (5 June 1867): 'my object is to direct the attention of the Greeks, and through them, of the other peoples of the east to the existence of the remains of the stone period which in Greece are very abundant' (Hussey 1973, 116; a copy of the letter is in box C6 in the BSA archives). One can only speculate about what he may have meant with the words 'and through them' with reference to Greek scholars. Did he mean for them to set an example by excavation, or by means of publications in a language that was widely spoken among educated people throughout the eastern Mediterranean? One is equally unsure about what he meant by the 'other peoples of the east'. To whom was he referring? To the subjects of the Ottoman Empire? To diaspora Greeks? There is one further clue: Finlay is said to have intended his monograph to be read by schoolmasters (Dumont 1872, 9). It is therefore likely that he hoped that teachers would use the pamphlet to help instil an interest in prehistory among students throughout Greece and those parts of the Ottoman Empire where Greek was the language used in education.

Unfortunately, it seems that *Observations* did not have the desired effect of stimulating interest in the Greek Stone Age. But why did it fail? The obvious answer would be because of the priority given by the Greek state and its educational and scientific institutions to the study of classical antiquities. The nineteenth-century Greek enthusiasm for classical antiquity was in accord with contemporary European cultural trends, and, as Iris Tzachili has noted in reference to the lack of interest in the French archaeological research on Santorini in the 1860s, such studies were 'unsuitable for ideological exploitation'; she adds that 'under the pressure of the official institutions and of an archaeological practice that assigned Greek archaeology to the history of art, archaeological excavation over the following decades concentrated on Classical Greece ... [because] archaeology was called upon to offer ideological confirmation for the young state whose identity was still being formed' (Tzachili 2005, 253). One wonders if things would have gone differently if Finlay had chosen to publish his observations in English, French, or German. Such a decision would have made this publication more accessible to European prehistorians, for whom prehistory had developed independently of classical studies as part of the investigation of national origins (Trigger 1989, 73–109; Schnapp 1996, 275–314). I suspect it would probably have made little difference. European prehistorians in the late nineteenth century were committed to the study of local prehistory, and in any case lacked resources for carrying out research in foreign lands. It was not until Schliemann came upon the scene with his widely publicized excavations at Troy, Mycenae, and Tiryns in the 1870s and the 1880s that the potential for prehistoric discovery in Greek lands was brought home to foreign and Greek archaeologists. And then the emphasis was on the Age of Heroes in the Late Bronze Age, a prehistoric world that could be

connected with Homer, myth, and early Greek religion, and was thus, in Tzachili's terms, 'suitable for ideological exploitation'.

In the end, it was the Greek prehistorian Christos Tsountas who first publicized the Greek Neolithic with his excavations at Sesklo and Dimini in Thessaly. Tsountas argued for the Neolithic origins of Greek Bronze Age culture and introduced Greek archaeologists to early prehistoric research based on his ideological interpretation of the Greek Neolithic as part of a nationalistic discourse on the presumed long and indigenous history of the Greek people (Andreou 2005; Gallis 1979; Voutsaki 2002, 2003). He also presented his findings in a popular book that was published first in Greek and made widely available in an English translation as *The Mycenaean Age* (Manatt and Tsountas 1897). Now that Finlay's original text is available in a transcript, it is perhaps time to consider according to George Finlay the honor of being the first Greek prehistorian.

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TRANSCRIPTION OF FINLAY'S MANUSCRIPT

Nota Bene: in the interests of presenting this transcription in a style that makes minimal changes to Finlay's manuscript, I have retained Finlay's orthography, capitalization, and punctuation. In a few instances, where a word appears to be incomplete or missing, any correction required is in brackets. Numbers in square brackets are Finlay's page numbers.

[83] Observations
on
Prehistoric Archaeology
in
Switzerland and Greece
by
George Finlay LLD.
Athens 1869

[85] To Dr Ferdinand Keller President of the Society of Antiquaries of Zurich who has rendered the Lake Dwellings of Switzerland a κτήμα ἐξ ἀεί in Archaeology these few pages are dedicated as a mark of gratitude for much kindness by the author.

[86] Expense of printing 500 copies of this memoir in greek²

Paid Mr Koulouriotes for translation	100	
Mr Kalopothakes' acct		
Printing———	105	
Paper	94.10	
Stitching to Binder	15.20	
		<u>214.30</u>
		314.30

² [The expenses are in 'francs', according to notes among papers in the same box. A 'franc' in this period

would have been one Greek drachma valued at approximately \$0.20.]

Postages to Switzerland, Germany,
France & England

$$\begin{array}{r} 32.25 \\ \hline 346.55 \end{array}$$

[87] Prehistoric Archaeology has of late years become a recognized branch of science, in consequence of the discoveries made in Denmark, Switzerland and France. Implements of stone resembling axes and chisels have been found in almost every country both in the old and new world and their appearance has made a strong impression on the minds of men from the circumstance that they are often formed of stone unlike any native rocks or pebbles of the place where they are picked up. From the eastern slopes of the Himalaya mountains to the plains of Germany they are supposed to have fallen from heaven. The Germans call them *donnerkeile*, the ancient Greeks called them κεραύνιοι βέλοι [*sic*] and the people today call them ἀστροπελέκια. The great weight and metallic appearance of some of these implements seem to indicate that these are really aerolites, so that the name may have a logical origin.

A fine collection of well selected specimens of the implements of flint found in Denmark has been presented to the Archaeological Society (of Athens) by the Royal Society of Northern Antiquaries in Copenhagen.

The small collection of relics from the lake habitations in Switzerland now offered to the Society was procured by me (George Finlay) last summer (1868) chiefly through the kindness of Dr Ferdinand Keller, the president of the Society of Antiquaries of Zurich, who is the fountain head of knowledge on this subject, and of Dr Uhlmann of Münchenbuchsee near Berne who is [89] engaged in laborious researches relative to the Fauna of the times of the lake habitations. Part of the objects are from Wangen on the lower branch of the lake of Constance called the Untersee. Part consists of a donation from Dr Uhlmann, and these specimens were collected by him during excavations which he has long carried on and still continues at the small lake of Moosseedorf close to Hofwyl. Both these positions belong to the early stone period of the lake habitations. The excavations of Mr Caspar Lohle at Wangen, from whom I procured the objects, have been described by Dr Keller in his *Memoirs on Keltische Pfahlbauten* which he has presented to the Society and which have been published in an English translation under the title, 'The Lake Dwellings of Switzerland & other parts of Europe by Dr Ferdinand Keller, translated and arranged by John Edward Lee, F.S.A. F.G.S. author of *Isca Silurum*. London 1866.' The first results of Dr Uhlmann's excavations at the Moosseedorfsee were published in a memoir entitled 'Die Pfahlbau Alterthümer im Moosseedorf von Alb. Jahn und Joh Uhlmann. Bern 1857,' and more recent accounts in *The Lake Dwellings* of Dr Keller & Mr Lee.

A few objects belonging to the Stone period were observed in Greece before the fact was known that they are relics of the people who inhabited the country in Prehistoric times. The pieces of obsidian, at first generally called flint by travellers, that were picked up upon the Tumulus of Marathon, were termed Persian arrow-heads. This arose from the strange misapplication of stone arrow-heads being employed by the Ethiopians [91] in the army of Xerxes, (Herodotus Polymnia VII. s 69) who used short arrows of reeds pointed with a stone with which they engraved their signets. But why Datis who can hardly have had any Ethiopians with him thought it expedient to bring to Marathon enormous quantities of these stone arrow heads as peculiarly efficient against the Athenian hoplites has not been explained. Yet a sagacious traveller like Dodwell in 1805 says that he found 'a great many small arrow-heads of

black flint, which probably belonged to the Persian army.' (A classical & topographical tour through Greece during the years 1801, 1805 & 1806 by Edward Dodwell Esq. Vol II p. 159) Even Colonel Leake the ablest & most observant of modern travellers was misled by this opinion. He says 'While I was employed on the summit of the Soros, as the tumulus of the Athenians is called, my servant amused himself in gathering, at the foot of the barrow, a great number of pieces of black flint which happened to strike his observation. These flints are so numerous & have been so evidently chipped by art into their present form, like gun-flints, that there is good reason for believing them to have been the heads of arrows discharged by the Persians who fought at Marathon, and to have been interred with the Athenians, after having been gathered from every part of the plain after the battle. Herodotus shows that some of the barbarians were armed in this manner, though his remark is applied not to the army of Darius but to that of Xerxes. Flint of this kind, if produced in any of the adjacent parts of Greece is at least very rare.' (Travels in Northern Greece Vol II p. 431) The immense quantity and the small dimensions of the fragments found in the tumulus at Marathon might have suggested the question [93] which such feeble weapons could have employed in a pitched battle again [*sic*] men covered with the brazen panoply worn by the soldiers of the greek infantry at that time. Had they been really employed by the Persians, the glory of Marathon would have been a vain boast. Sir William Gell in his Itinerary of Greece page 166 mentions that similar fragments of flint are found at the σχίστη [*sic*] ὁδός where was the tomb of Laius and he adds, 'perhaps a confirmation of the discomfiture of the barbarians in Odos schiste.' That these fragments of obsidian wherever they may be found in Greece are relics of prehistoric times is now universally acknowledged, and a careful examination of the tumulus at Marathon proves satisfactorily that they were scattered in soil when it was collected to form the mound over the Athenians who were slain in the battle.

The Prehistoric period may be subdivided differently in different countries, but it consists every where of two great divisions. The first is the period during which the use of metals were unknown and instruments were formed of stone, bone & horn and the second is the metallic period which commences with the employment of pure copper for many of the instruments previously formed of stone & of bone. This second period continued until the dawn of history and in Greece may <be> regarded as extending to the mythic ages. Of the stone period no remnant of any tradition appears to have been transmitted to the Greeks for none survived in the time of Homer.

The Lake dwellings of Switzerland supply the best of [95] opportunities & means for studying the habits of the population both during the stone & metallic periods of prehistoric times. I shall give a short account of the remains found at Robenhausen on the small lake of Pfäffikon in the canton of Zurich, because the spot affords a more complete type of these settlements at different periods than the remains at Moosseedorf & Wangen. There are remains at Robenhausen belonging to the earliest period of the lake habitations and the spot can be examined in detail in consequence of the excavations that have been & are still carried on. I had myself the opportunity of visiting the place and examining its interesting peculiarities with Mr Messikommer the proprietor and excavator after I had prepared myself by reading attentively the memoirs of Dr Keller and visiting the museums of Zurich and of Dr Uhlmann and inspecting the remains of piles in several places where they still exist in their original positions.

Robenhausen possesses the advantage of displaying the remains of three successive

settlements. Two belong to the stone period and the third and most modern to the metallic period.

The earliest dwellings were constructed in the lake of Pfäffikon when it was much larger than at present. But the depth of the water began to be diminished after the construction of the dwellings by the growth of aquatic plants at the bottom and on the borders of the lake. The area of the lake was gradually diminished by the formation of peat moss which has now covered the remains of the three successive lake habitations in its waters. This peat by covering the relics of the inhabitants and by its stypitic nature has contributed to [97] the preservation of many curious facts relating to the stone period.

The piles on which the earliest dwellings were constructed consist of round trees chiefly fir, about 4 metres long & about a decimetre in diameter, sharpened at the end partly by fire & partly with implements which, from the manner of cutting, are considered by those who understand the matter, to have been stone axes. These piles were driven to the depth of half a metre into the shell marl that formed the bottom of the lake. Cross stakes were laid on these piles and fastened to them with a cut socket. Over these a platform of boards was placed & fastened to the cross beams & piles with wooden pins. The whole of this structure must have required great labour & considerable skill on the part of men without any implements but those composed of stone bone & horn. On the platform a floor of beaten clay was formed of which pieces have been preserved with impressed marks of the wood on which they rested, from having been hardened by fire before they fell into the water. The sides of the dwellings appear to have been formed of wattles & plastered with clay to keep out the cold. This early settlement was destroyed by fire & its remains fell into the lake, where the heavier parts & those not soluble in water nor easily removed by the motion of the waves were gradually buried in a mass of roots of aquatic plants that in time grew into peat. A bed of relics was thus formed about 40 centimetres in thickness consisting of implements of stone, and bone, pottery, corn, bread, fruits for food and flax and woven cloth. Charcoal is mixed with these remains in great quantity. The pottery is rude and like that found at Moosseedorf and in the earliest settlement at Wangen, formed entirely by the hand, for the potter's wheel is a later invention, and appears to have been unknown to the inhabitants of the lake dwellings in Switzerland. Hearth stones are also found which from their situation warrant in[99]ductions concerning the size & disposition of the houses. Grinding stones for sharpening implements of stone have also been found & numbers of stones which it is thought were used for crushing the grain used for making bread. The hand mill had not been discovered and the charred bread consists of pounded grain with the bran.

A long period elapsed from the burning of this first settlement before a second was formed in the same place & during this interval a layer of peat was formed over the relics of the first dwellings which is about a metre in thickness.

A second settlement was in time established immediately over the site of the first. The piles of this second settlement were like those of the first, round & of fir & about the same length. They were driven down to the shell marl but penetrated it little more than a decimetre. This second settlement was constructed more solidly than the first. The piles are more numerous in an equal space & the cross beams for the support of the flooring are stronger. The number of habitations must have been considerable for it is calculated that they were supported by not less than 100,000 piles. There are two distinct beds of relics belonging to this settlement. One consists of useless instruments and of things that had been thrown or had had accidentally

fallen into the lake. Broken stoneaxes [*sic*] & bones of animals used for food are frequent. This bed is about nine inches thick and consists of animal matter & mud resting on the peat that had grown over the earliest settlement. The excrements of the men & animals can be identified by the food they used. Immense quantities of seeds of apples (*pyrus malus*) cherry, (*prunus padus*) raspberry (*rubus idæus*) and the shells of hazel nuts are found. The excrements of cows & swine & the fæces of sheep & goats have also been identified with the remains of the straw and rushes used as litter. The second bed of relics was formed by the destruction of the settlement.

[101] The second settlement was destroyed by fire like the first and the force of the conflagration is testified by the carbonised condition of the upper part of the piles. Its remains which fell into the lake consist of a layer of charcoal, baked clay of the flooring, hearth stones, grinding stones, implements of stone, horn and bone, weights for weaving & spinning, pottery, quantities of flax, nets for fishing, pieces of linen cloth, bread made of pounded grain, stores of wheat, barley, apples, & hazel nuts, the water nut or *trapa natans* which exists no longer in Switzerland, seeds of various fruits and also stores of acorns & beech mast for the cattle & pigs. The stone implements of this settlement are often polished & fashioned with more care & art than those of the earlier settlement, but no traces of any metal have been discovered in the relic bed which is considerably thicker than the bed formed by the remains of the first settlement.

Again, after the destruction of this second settlement, a long interval of time elapsed during which the site appeared to have remained unoccupied by man. A bed of [103] peat about a metre in thickness accumulated over its relics and to this peat moss and the effects of carbonization we owe the wonderful state of preservation in which the food of its inhabitants & the specimens of their industry have been found which may be seen in the Museum of the Society of Antiquaries at Zurich.

The growth of the peat had at last rendered the waters of the lake of Pfäffikon very shallow over the site of the early lake habitations. In some places it may have become almost a marsh. In this shallow water a third settlement was formed immediately over the two preceding that had been destroyed by fire. The piles of this third settlement are often formed of the trunks of small oak trees split into angular stakes of about a decimetre on each side. These piles are stronger & better pointed than the other piles but they do not reach deeper than the bed of peat over the remains of the first settlement. There are no traces that this settlement was destroyed by violence or by fire. It was probably abandoned in consequence of the growth of the peat rendering the water stagnant & the place unhealthy from the accumulation of decomposing matter around & beneath the habitations. Water would require to be brought from some distance & the site also would cease to afford facilities for defence as soon as it could be approached through the marsh at any hour of the day or night. The remains of this third settlement are consequently neither so numerous nor so interesting as those of the earlier habitations. There are proofs that metal was known & coming into general use during the existence of the third settlement and fabrication of stone implements had reached the highest degree of perfection and stones most suitable for the uses to which they were known and it is supposed were in some cases brought from distant countries. Implements have been found of nephrite or jade which it is supposed was imported into Switzerland from Asia & Egypt. These pieces of jade & nephrite are sometimes found fitted into sockets of stag's horn to prevent the wood of the hafts from splitting. The pottery of this settlement is formed <with>

greater skill & it is better baked than those of the earlier settlements. Earthen ware crucibles have been discovered with the residuum of melted bronze adhering to them & lumps of copper & pieces of tin have been found. These crucibles have handles to take them from the fire & the clay of which they are composed is mixed with horse-dung in the same way in which the composition is now prepared for the moulds used for casting bronze. This knowledge of the scientific preparation of crucibles must like the use of bronze itself must have been imported from abroad, as was probably the tin employed in making the bronze in use. No implements of bronze nor any ornaments of metal have yet been found among the relics of this third settlement at Robenhausen. This may be received as evidence that metal was still a rarity and of [105] so great value that it was carefully preserved & anything composed of metal was rarely lost.

The most interesting questions connected with the stone period in every country are chronological. When did the stone period commence and end and at what time did the use of metal commence. Hitherto no precise evidence on these chronological question<s> appears to have been ascertained from the remains of the lake dwellings in Switzerland. The date of the third settlement at Robenhausen being contemporary with the introduction of bronze cannot be placed later than the seventh century before Christ. It cannot be supposed that the use of bronze which was known to the greeks and etruscans for more than a thousand years did not penetrate into Switzerland when the greek colony was established at Marseilles, at the latest. But it may have penetrated beyond the Alps even long before the time of Homer. How many centuries may have been required for the growth of a metre of peat over the second settlement; how long the second settlement existed, and again how many centuries were required for the growth of the layer of peat over the earliest habitations and for how many generations these earliest habitations endured are all questions that may perhaps be answered approximatively by careful scientific investigations on the spot and an accurate knowledge of local circumstances. But whether the period that has elapsed from driving the first piles of lake habitations in the lake of Pfäffikon be thousands of years & hundreds of generations, there is no doubt that we have there evidence of man's existence & habits of life in prehistoric ages. The bones of animals now extinct in Switzerland (*Bos primigenius*, *Bos* *Bison*, *Cervus alces*, and *Castor fiber*) are found in great numbers. The *Bos primigenius* was then domesticated and species of oxen, swine & dogs of which the bones [107] are found are frequently different from the races of these animals now existing in the country. The facts are stated in the work of Professor Rüttimeyer of Basle. *Die Fauna der Pfahlbauten in der Schweiz, Untersuchungen über die Geschichte der wilden und Haus-säugethiere Mittel Europas, mit halzschnitten [sic] und 6 Tafeln Abbildungen.* Basel 1861. And the subject has been treated again with great accuracy of investigation by Dr Uhlmann of Münchenbuchsee in a memoir *Ueber Thierreste und Gebisstheile gefunden in den Schuttablagerungen der Tinière bei Villeneuve am Genfersee* inserted in the *Mittheilungen der Bernischen naturforschenden Gesellschaft.* Bern 1868.

The prehistoric period in Greece is that to which I particularly desire to direct attention. It has hitherto attracted very little notice and when we contemplate the archaiological riches of Greece in historic times even by a cursory examination of the small museum of the Archaiological Society of Athens, it is not surprising that little attention has been hitherto bestowed on prehistoric remains which supply only a few insulated facts for consideration. No tradition of the stone period appears to have reached the inhabitants of Greece in historic

times, though the mythical history of the remains of Tyrinths and Lykosura as ascending almost to the limits of prehistoric times. My attention was first called to the existence of a numerous race of people in Greece who used stone instruments in great quantity by the fragments of obsidian in the tumulus of Marathon. I observed that these fragments existed in their present form in the soil when it was heaped up to form the tumulus and that are found towards Vranà & far in the rear of the greek position during the battle. It was soon apparent that they were relics of a prehistoric period from the fact that I found in great quantities in other parts of Attica and in almost every part of Greece and [109] the islands of the Archipelago which I visited after my attention was attracted to the subject. I have picked up fragments of the kind even in the island of Hydra. This observation was published as early as the year 1836. In that year while examining the topography of Attica I discovered the extensive deposit of fossil bones at Pikermi of which there is a valuable collection in the Museum of Natural History. The first detailed description of these remarkable fossil bones was published by Professor Rath of Munich in the Transaction of the Royal Academy of Bavaria and they have been since described in the splendid work of Mr A. Gaudry. *Animaux fossiles et géologie de l'Attique*. In the first notice of the discovery which I read at a meeting of the Society of Natural History of Athens on 1/13 December 1836 I observed that I had picked up the fragments of obsidian called Persian arrow-heads when found in the tumulus at Marathon at Liosia near Aphidna, at Kakosialesi near Tanagra and at Agios Kosmas on the Attic coast near Trachones.³ When my Memoir on the Battle of Marathon which was read to the Royal Society of Literature in January 1838 was printed (transactions of the R S of Literature first series 4to Vol III page 392) I added a note 'Concerning the pieces of flint called Persian arrow-heads found in the tumulus at Marathon.' In this note I mentioned that these pieces of obsidian (for they are not flint) were mixed with the soil when it was heaped up by those who erected the mound over the men slain at Marathon; & I then stated [111] that similar pieces of obsidian are found scattered about within certain limits in many parts of Attica and other parts of Greece and that I had obtained some fine specimens in the island of Thera & I might have added afterwards in Ios, which are still in my possession.

I have since collected several specimens of stone axes & chisels similar in form & sometimes in material also to those found in the lake habitations of Switzerland. I have obtained four specimens of jade, one of which I have given to the Museum of the Archaiological Society at Athens with a similar piece which I obtained at Robenhausen. There is an interesting collection of stone axes chiefly from the island of Euboea in the Museum of Natural History which was formed by Mr von Heldreich.

In Denmark and Switzerland stone implements are found in great numbers. 'The Danish Museums contain 30,000 stone implements, to which must be added the rich stores of Fleusborg & Kiel, as well as the very numerous specimens with which the liberality of the Danish archæologists has enriched other countries, and two fine collections have been sent by the Royal Society of Northern Antiquaries to Athens and may be seen in the Museum of the Archaiological Society and in the Museum of Natural History. 'The museum of Stockholm is estimated to contain between 15000 & 16000 specimens.'⁴ I have not been able to obtain

³ [Finlay's note] My words were ὠφελοῦμαι ἀπὸ τὴν εὐκαιρίαν ταύτην νὰ προσφέρω εἰς τὴν Ἑταιρίαν ὀλίγα δείγματα χαλίκων, οἱ ὅποιοι ὀνομάζοντα<ι> κοινῶς Περσικαὶ αἰχμαί, ἐκ τοῦ Σωροῦ τοῦ Μαραθῶνος, ἐκ τῶν Λιοσιῶν, ἐκ

τοῦ Κακοσιάλεσι καὶ ἐκ τοῦ πλησίον τῶν Τραχόνων Ἀγίου Κοσμά.

⁴ [Finlay's note] Pre-historic Times by John Lubbock F.R.S. 1865. p.01.

any estimate of the number of stone implements found in Switzerland but I have myself seen a very large number in the few public & private collections I have visited, though I have visited only one or two of the richest museums. The museum of the Royal Irish Academy contains 2000 stone implements and considerable numbers exist in many public & private collections in Great Britain and [113] France. An interesting collection of stone implements was collected under the head of *Histoire du Travail* in the great French Exhibition of 1867.

The evidence of the existence of a stone period in prehistoric archaiology for a long period is found in the numerous fragments of obsidian found in every part of Greece and when stone axes begin to be collected with care and the localities where they are found are carefully noted many interesting facts may be brought to light. The finest specimen in the possession of the author was found at Dobrena near Thisbe, where a lake must have existed anciently & where there is still a marsh. Two small axes found at Orchomenos near the lake Copais were given to the author by Mr Merlin Her Majesty's Consul for Northern Greece. That lake habitations continued to exist in Macedonia in historic times is proved by an interesting passage of Herodotus (Terpsichore V. 16) which has been often quoted but the record of the dwellings which the Paeonians constructed on piles in the lake Prasias is so important that I shall transcribe it. 'They who dwell on the lake Prasias construct their dwellings in this manner. They fix strong piles in the lake and on these they fasten planks making a bridge with a narrow entrance from the land. The piles supporting the planks were in former times fixed by the inhabitants in common, but afterwards the law established that every one who married a wife (& they take many wives) should bring down from Mount Orbelos three piles and fix them in the lake. The manner of their dwellings is in this fashion. Each man has his own hut on the piles & a trap door through the flooring by which he can descend to the lake. The young children are tied by the foot lest they should fall into the water.'⁵ The lake Prasias of Herodotus is the lake of the Strymon [115] Thucydides (τὸ λιμνῶδες τοῦ Στρυμόνος) v. 7 the Kerkinite lake of Arrian (Κερκινίτις Λίμνη) Anab. 1.11.3 and is now called Tachynos from a village on its western side. The fisheries are still valuable as they were in ancient times and the fish principally caught for sale are carp, tench & eels. Leake's Travels in Northern Greece Vol. III. p. 198.

The description which Herodotus has given of the lake dwellings of the Paeonians makes it an object of great interest to the antiquaries of Switzerland & England that the borders of the lake Tachynos and the other lakes in Macedonia should be carefully examined to ascertain if any vestiges of these lake habitations of historic times can still be found. There has been a greater accumulation of earth washed down from the mountains generally in the lakes both of Macedonia and Greece than in the lakes of most northern countries, but a careful examination by scientific men of experience would in all probability bring to light some discoveries of importance. A project was formed to send a mission to make researches at the lake Prasias but for the present it has been rendered in<ef>ectual by the premature death of Mr Ch. Adolphe Morlot the able Swiss archaologist who it was hoped would have taken charge of a scientific mission.⁶

Numerous lakes in Greece deserve to be carefully examined for as there are proofs of a numerous population over the country during the stone period, it is probable that lake dwellings like those described by Herodotus and those of which numerous remains have been

⁵ [Finlay's note] In the greek translation of this memoir the author transcribed the passage from the modern greek translation of Herodotus by A. Radinos.

⁶ [Finlay's note on facing page] See a letter from Mr Albert Dumont member of the french school at Athens written to me after his return from Thrace.

found in Switzerland existed in every fresh water lake since they would offer the most convenient means of protection against wild beasts for women & children while the men were absent whether employed in agriculture, hunting or war. The lakes that deserve to be particularly examined are, the lake Copais and the other lakes in Boeotia Hylica (Livadi) & Paralimni. The great [117] Aetolian lake Trichonis with its connected water of Hyrie, the Acarnanian lakes and the lagoons at the mouths of the Achelous & the Evenus. In the Peloponnesus, experienced observers ought to examine carefully the lakes of Stymphalus & Pheneus with their physical peculiarities & mythical associations running back towards a prehistoric period. The lake of Orchomenos, the marsh of Mantinea, the lakes near Tegea and the lagoons at the mouths of the Eurotas & the Alpheus as well as the marsh at Pylos (Palæo Avarino) as well as some other place<s> offer a field for careful research. It is also possible that spots on land may be identified as the sites of the habitations of men in prehistoric times from the fragments of obsidian & other relics that remain. The positions would be selected from being easily defensible by men with only weapons of stone and from the access to a spring of water being well protected. I have observed such a position overlooking the plain of Aphidna & picked up there a great number of fragments both of obsidian and silex artificially worked.

The stone period of Western Europe has been divided into two periods. To the earlier a great antiquity has been ascribed and the implements of stone belonging to it are of a very rude fabric & form. No relics of this early period have yet been found in Greece and no traces of man occur among the fossil bones of animals in Attica & Euboea. The implements of the later period display considerable skill and are often found polished with great labour. This later period was terminated by the introduction of bronze in Switzerland, but in Greece it may have remained for a long period contemporary with the use of copper. A small axe of pure copper which has been formed by heating the metal & which does not appear to have <been> cast in a mould was found by a peasant on Mr Noel's property at Achmetaga in Euboea [119] and is in my collection. It is about 6 centimetres in length & three in breadth and has the usual triangular form of many small stone axes to fit it for being used with a haft. The metal is so soft that the peasant who found it made several notches in it with his knife to ascertain that it was not composed of a precious metal. Pure copper is so soft that for many purposes it would be less suitable for implements than stone. Silex is much harder & sharper and serpentine & many argillaceous & siliceous rocks much tougher. When used for axes it would required to be made into implements of great weight and this circumstance perhaps explains why it is so rare since it would at a later period be converted into bronze. The copper implements that have been found in different countries have been of small size. In Hungary and on the lower Danube a considerable number of implements of pure copper have been found. Some have been found at the lake dwellings at Peschiera on the lake of Garda & a single fragment of an axe has been found at Maurach on the lower lake of Constance. In Switzerland there appears to have been no period when pure copper was in general use. Bronze implements were probably introduced by the same agency that furnished the people with implements of nephrite. Werner the celebrated mineralogist supposed that pure copper was the first metal worked by man.

I have already observed that the name Ἀστροπελέκια given to stone implements in Greece, corresponding to the german appellation donnerkeile (thunderbolts) may have been given because they were originally formed of meteoric stones, and the name was extended to all.

Three in my possession are remarkable for their extraordinary weight and a fourth from its metallic appearance may be an aerolite; yet none of these are magnetic while three which are not remarkable for weight and are more like Lydian stone than aerolites [121] are strongly magnetic. It may be mentioned that in Greece as in other countries they are supposed to possess medical virtues & are guarded as amulets. Some being black & extremely hard are used as touchstones. Sir John Lubbock in a letter to *The Athenaeum* (June 22, 1867 page 822) mentions 'that in Assam as in Europe & elsewhere, these stones are supposed to fall from heaven & to be powerful talismans.' It is possible therefore that the appellation of thunderbolts was first given to axes formed of aerolites in India and that the name spread westward with the races who used them.

Pliny in his *Natural History* has several passages which evidently refer to celts and stone axes. He speaks of Ceraunia & Brontea and with reference to Ceraunia he says they resemble axes in shape and are only found in places that have been struck by lightning. *Plinii Natur. Hist.* XXXVII. 51.

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NEOLITHIC LIME PLASTERED FLOORS IN DRAKAINA CAVE, KEPHALONIA ISLAND, WESTERN GREECE: EVIDENCE OF THE SIGNIFICANCE OF THE SITE

INTRODUCTION

CONSTRUCTED floors offer optimal conditions for studying human activities since they are often durable features that remain intact and seal the deposits below them. Anthropogenic sediments preserved between the constructed floors help to identify specific activity areas and unravel the complex history of occupation sequences. Therefore analysis of microstratigraphy and microstructure of the sequences enables study of the use of space by examination of the types of floors and the relationship between sediment and their archaeological findings (Matthews *et al.* 1996). Such a sedimentary contextual analysis can be based on the microscopic study of undisturbed sediments, known as soil micromorphological analysis (Courty *et al.* 1989). Micromorphological study aims to understand the relationship of all constituents in each occupational layer as preserved in the archaeological site. The products of this relationship, i.e. the fabrics of the sediment are diagnostic of different mechanisms involved in their formation (Ge *et al.* 1993).

Considerable interest has been expressed in the study of lime plastered floors since Gourdin and Kingery (1975) identified lime plaster from the Pre-Pottery Neolithic B of the Near East (9th millennium cal BC). Quicklime, CaO, is produced by calcining calcium carbonate rich materials such as limestone (calcium carbonate, CaCO₃) at about 850–900°C. When mixed with water CaO reacts forming calcium hydroxide (slaked lime). The slaked paste reacts with the atmospheric CO₂ and produces again a hard calcium carbonate mass. The production of lime since at least the Neolithic has raised questions concerning the method of production and the socioeconomic development of these societies with implications in craft specialization, labor intensification, and resource management (Garfinkel 1987; Goren and Goldberg 1991). Plastered floors have been reported in the Neolithic of Greece, 6500–3300 BC (e.g. Achilleion, Megalo Nisi Galanis, Mandalò, and Makri), but they have not been thoroughly studied yet; only field observations are available (Andreou *et al.* 1996). In addition, no data in the literature document the use of plaster in the caves of that period in Greece. Drakaina Cave is an exception in that it preserves well-constructed lime plastered floors in its Neolithic sequence, which covers a long period from the Late Neolithic to the Chalcolithic (Karkanas 2002; Stratouli 2005; 2007).

In this paper an attempt is made to study the floors of Drakaina Cave by trying to understand the technology of lime production and floor construction in detail. At the same time, the study of the microstructure of the anthropogenic sediment produced by human activities on the floors helps to clarify issues related to the nature of the site within its cultural setting.

SITE DESCRIPTION

Drakaina Cave is located at an altitude of *c.*70 m, on the steep cliffs of the Vochyna gorge, within the area of the village of Poros, which lies on the south-east coast of the island of Kephallonia in the Ionian Sea (FIG. 1). The cave has been formed in a limestone strip of Neogene sedimentary rocks of Upper Triassic–Jurassic age that separates the coast from the Tzannata small inner basin (Bergman 1964). In its present form, Drakaina is a shallow but well-protected cavity, with a sheltered area of less than 100 m² and a non-sheltered area of approximately 80 m², the latter forming a terrace immediately in front of the cave (FIG. 2). Several limestone blocks scattered on the terrace, together with some speleothem remnants, indicate the existence of a deeper cave that has gradually collapsed.

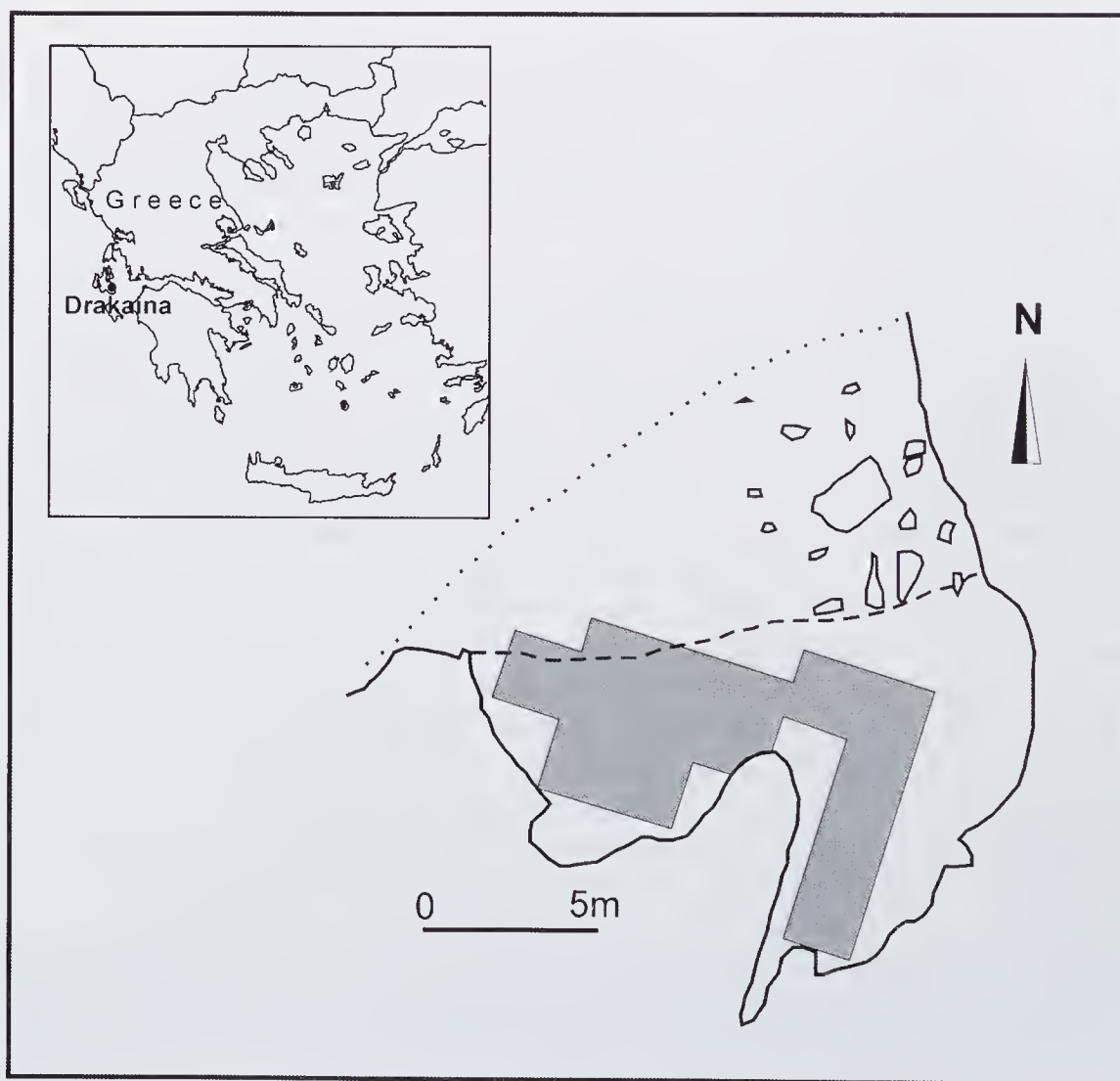


FIG. 1. Map of Drakaina Cave showing the excavated area of the Neolithic deposits (in grey). The eastern area preserves Late Archaic, Classical, and Hellenistic cultural remains. The inset shows the location of Drakaina Cave in Kephallonia, western Greece.

THE ARCHAEOLOGICAL SEQUENCE

The uppermost part of the sequence in Drakaina Cave (c.0.20–0.40 m) comprises archaeological finds that date from the Late Archaic to the Hellenistic periods. During that time the site was used as a cult place dedicated to the Nymphs and their companion, the god Pan (Chatziotou *et al.* 1995; Chatziotou and Stratouli 2000). Underlying these layers, there is an accumulation of natural deposits (c.0.10–0.15 m), with no evidence of cultural remains. Immediately below there is a unit comprising Early Bronze Age (EB I–II) scattered finds, which occur mixed with findings of Chalcolithic date.

The underlying sequence, which is approximately 1.50–1.70 m thick and constitutes the bulk of the archaeological sequence, consists of stratified deposits dating to the Late Neolithic and the Chalcolithic (c.5600/5500–3700 cal BC) (Stratouli *et al.* 1999; Stratouli 2007). During the excavation of the site, this lower sequence was marked by several striking, hard whitish-looking units, which seemed to indicate the existence of distinct activity surfaces and/or possible floor horizons. These units were sampled and analysed, in order to elucidate their nature.



FIG. 2. Lime plastered floor exposed on the surface of the excavation.

METHODOLOGY

Micromorphological techniques supplemented by Fourier Transform Infrared Spectroscopy (FTIR) were used for the study of the Neolithic plastered floors and sediments of Drakaina Cave. Micromorphology is the microscopic study of undisturbed and oriented samples of sediment and soils (Courty *et al.* 1989). In the case presented here, an attempt was made to recover intact blocks of $15 \times 10 \times 10$ cm containing both the plastered floors and the associated sediment. Where the preserved sequence was thicker, overlapping samples were collected. The blocks were oven-dried at 40°C for several days and then impregnated with polyester resin under vacuum. After having been hardened the blocks were cut into thin slabs with a rock saw and mounted on glass slides. Finally, thin sections of medium format, 60×40 mm, and $30\ \mu$ thickness were prepared. The finished thin sections were studied under a stereomicroscope at magnifications $5\text{--}40\times$ and under a petrographic microscope at magnifications ranging from $50\times$ to $400\times$.

A further set of samples was collected from the limestone bedrock of the cave, as well as a few samples from a nearby outcrop of Neogene marl and limestone, in order to examine potential source materials in the manufacture of these floors. In addition, selected samples from the floors and the collected Neogene rocks were also analysed with FTIR for determining the mineralogy of the samples. A $0.5\ \text{cm}^{-1}$ resolution spectrometer was used (MIDAC Corp.). FTIR spectra were obtained by mixing 0.1 mg or less of powdered sample with 80 mg of KBr. Spectra were collected at $4\ \text{cm}^{-1}$ resolution (Weiner *et al.* 1993).

RESULTS

Macroscopically, the Neolithic sequence of the cave comprises several well-preserved extended plastered floors, revealed in an area of $c.48\ \text{m}^2$ and dating to early and mainly later phases of the Late Neolithic ($c.5400\text{--}4800$ cal BC), as well as to early phases of the Chalcolithic ($c.4800\text{--}4500$ cal BC). The floors are made of about 5 cm whitish rock-hard/rigid material with a locally smooth upper surface. Reddish and grey tints are also observed as patches together with numerous inclusions of whitish chalk-like fragments. Between the preserved floors, there is a mostly loose dark-grey or brownish sediment, rich in archaeological findings. The thickness of that sediment varies, but it is usually in the order of a few centimetres. In some cases, fragments of plastered floors mixed with occupational debris are found in the sediment between the floors.

At least four separate layers of plaster construction were identified using micromorphological analysis. Under the microscope the floors have a thickness of 3–5 cm and consist of a mixture of lime, clay, and limestone fragments (FIG. 3). The latter exhibit a range of sizes, from 5 mm down to a few tens of microns. The mixture of lime and clay produces a compact, dense microcrystalline calcitic matrix with low primary porosity. The calcitic cement reacts with the enclosed limestone fragments, which in most cases show signs of incomplete transformation to lime in the burning process (FIG. 4 *a–b*). Some of them have shrinkage fractures, grey-dull colour in plane polarized light, low birefringence colours, or even amorphous appearance in crossed polars, and reaction rims with the surrounding lime binder. A few polycrystalline quartz fragments, feldspars, mica flakes, and fine charcoal are also observed in the lime matrix.

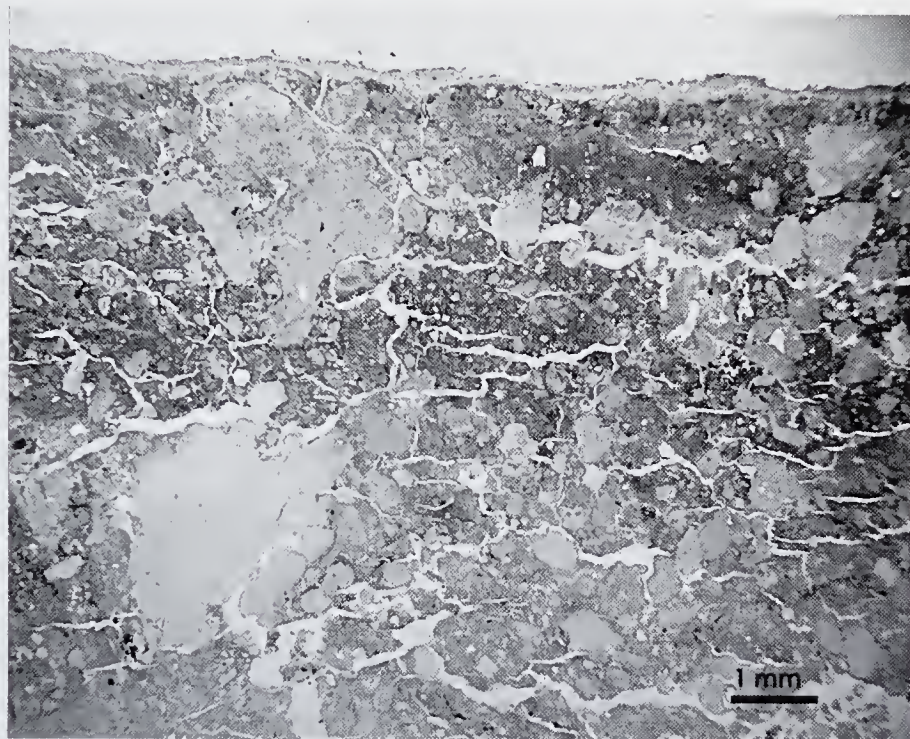


FIG. 3. Photomicrograph of a plastered floor with large quantities (30–40%) of lime inclusions and horizontal fissuring produced by compaction on the surface of the floor.

The incompletely calcined limestone fragments, i.e. lime lumps, comprise 30–40% of the plastered floors. In several cases it was possible to identify their parent material. It is a micritic to equigranular microsparitic limestone very rich in foraminiferous fossils. Remnants of such fossils are also found in the lime matrix suggesting common origin with the lime lumps. The collected samples from the Neogene marl (clay calcareous sediment) and limestone of the area around the cave have the same structure and fossil content (FIG. 4 *c*). In contrast, the limestone bedrock of the cave is recrystallized algal limestone with locally sparitic mosaic structures and recrystallized skeletal remains (FIG. 4 *d*).

Some of the samples of the lime plastered floors are characterized by the presence of fine cracks with a subhorizontal orientation due either to the shrinkage of lime during the hardening period, or to trampling during the use of the floors (FIG. 3). In this case, the systematic horizontal cracking of the lime matrix and the deflection of the cracks against the lime lumps are interpreted rather as post-hardening features. Most likely they are the product of trampling, possibly enhanced by the moisture and/or the clay content of the floors.

In some cases it was possible to differentiate three or four sub-layers in each hard floor, with diffuse boundaries between them. The lowest sub-layer is characterized by the incorporation of large amounts of occupational deposits rich in burnt remains. The next sub-layer is only observed locally and is rich in clay material. A third whitish sub-layer composed of a mixture of lime, lime lumps, and limestone fragments is ubiquitous, and is occasionally followed by a *c.* 1 mm thick coat made by pure lime. In addition, a few of the lime plastered floors exhibit a yellowish surface alteration zone of a few mm thickness (FIG. 5), which begins abruptly at the surface and penetrates gradually to the interior of the floor. The alteration material has reacted with the lime and lime lumps, transforming them to an amorphous compact phase.

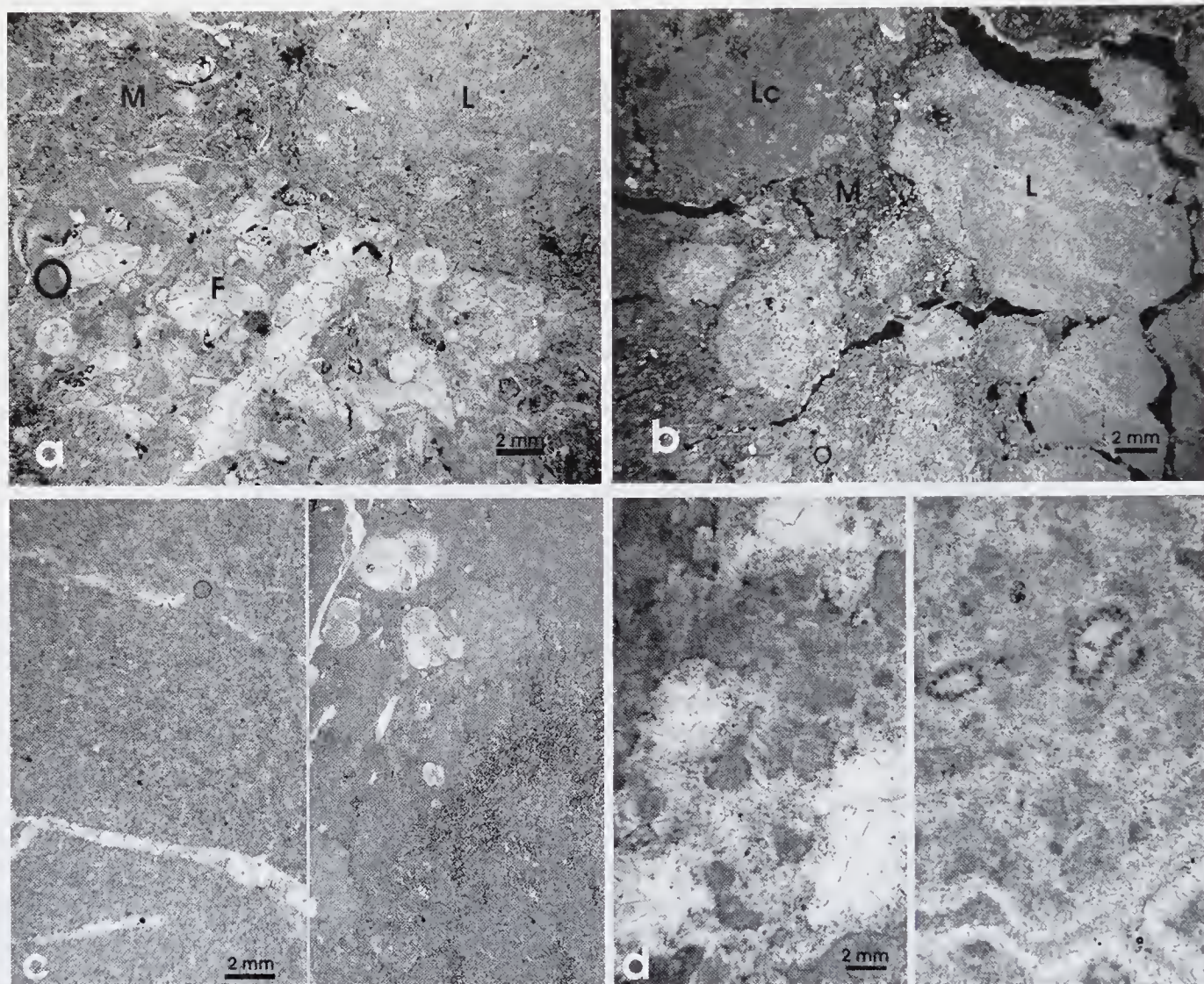


FIG. 4. (a) Fossiliferous (F) and micritic (L) limestone fragments showing incomplete transformation to lime. Note the diffuse boundaries of the fragments with the surrounding lime matrix (M). (b) A lime lump (Lc) almost completely assimilated in the lime matrix (M) and several other incomplete calcined micritic limestone (L) fragments. (c) Photomicrographs of a micritic limestone and a fossiliferous marl from the Neogene formation. Note the similarities with the limestone fragments of the previous photographs. (d) Photomicrographs of Upper Triassic-Jourassic limestone. Note the recrystallized structure and the algal remains on the right sample. All figures in crossed polarized light.

The effect does not continue to the immediately overlying occupational debris. It is argued, therefore, that this alteration zone is most likely to be the action of specific activities that took place directly on the constructed floors. FTIR analysis of this uppermost alteration zone indicates the presence of a phosphate mineral, apatite (FIG. 6), which under the microscope appears in cryptocrystalline isotropic form (FIG. 5).

FTIR analysis was also conducted to investigate whether the clay in the floors was added separately during the construction phase, or was related to the marl (clayey calcareous sediment) used in the production of the fired lime. FTIR analysis indicates that the clay found in the floors was burnt at temperatures above 600°C. This is shown by the lack of the charac-

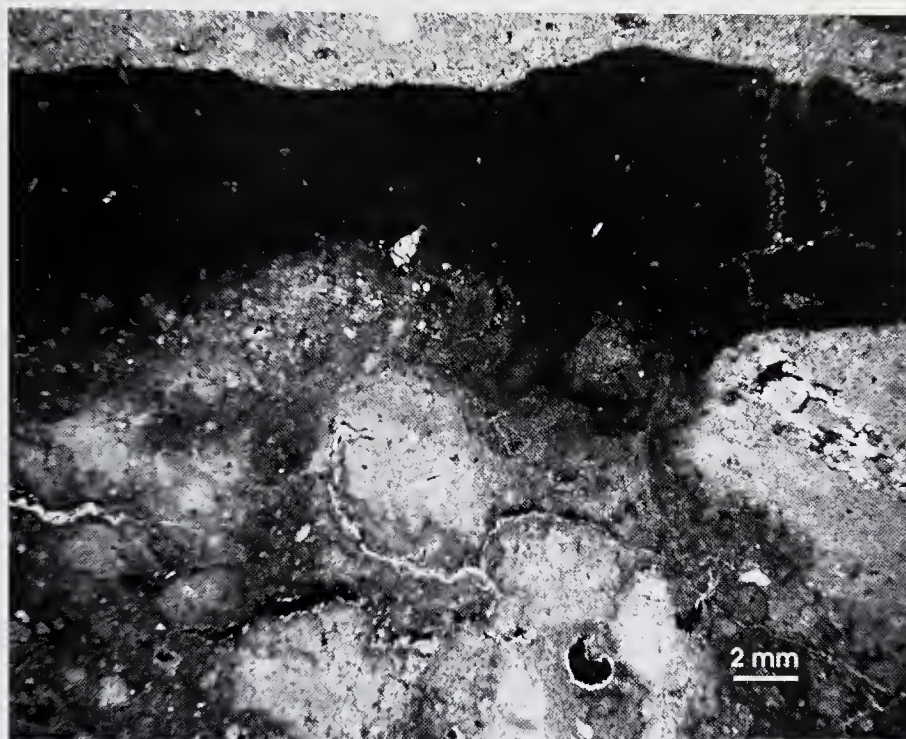


FIG. 5. Alteration of the surface of a floor sample by phosphates (apatite). The gradual reaction of the black alteration halo with the lime interior of the floor is shown as well as the abrupt upper alteration boundary coinciding with the surface of the floor. Crossed polarized light.

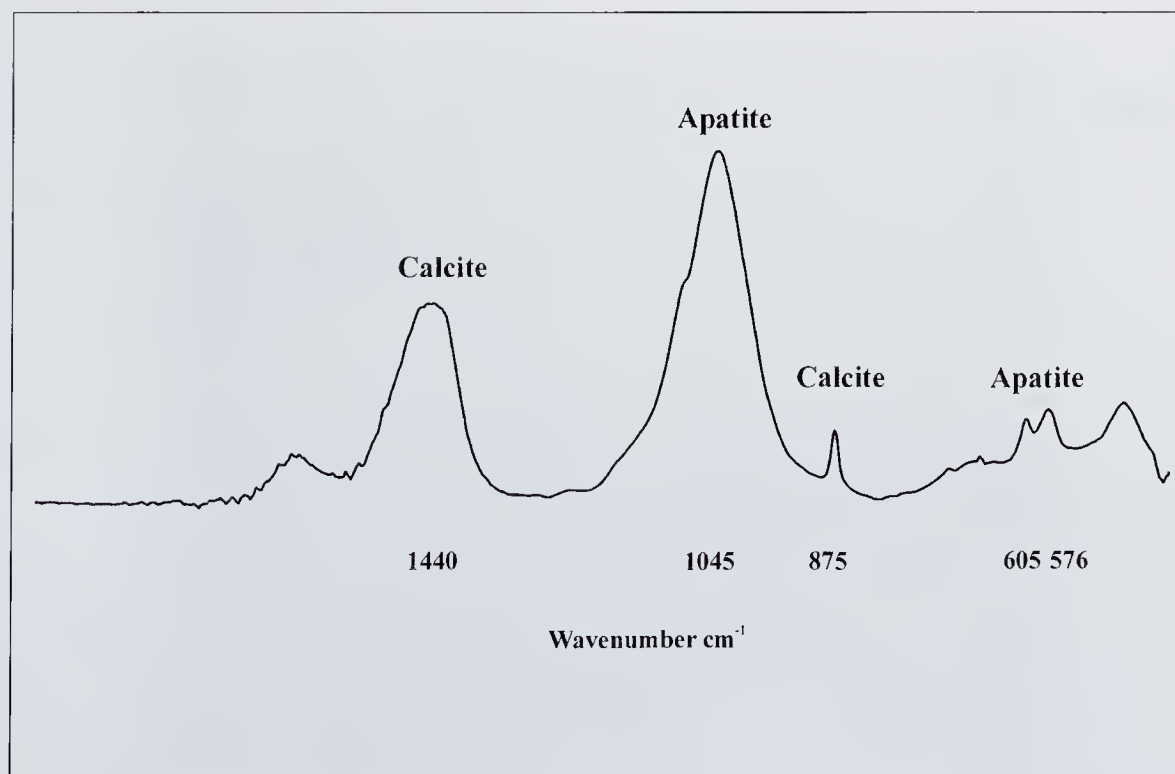


FIG. 6. FTIR spectrum of the altered surface of the floors. The characteristic double peak of apatite in the area of 605–575 cm⁻¹ is readily seen.

teristic peak of clays in the area of 525 cm^{-1} in the FTIR spectra (FIG. 7). In contrast, the Neogene marl, which is not burnt, shows a strong peak at that area attributed to specific hydroxyl bonds that are destroyed during heating (Freund 1974). The burnt clay rich areas in the samples were at least three centimeters below the surface of the floors. Additionally,

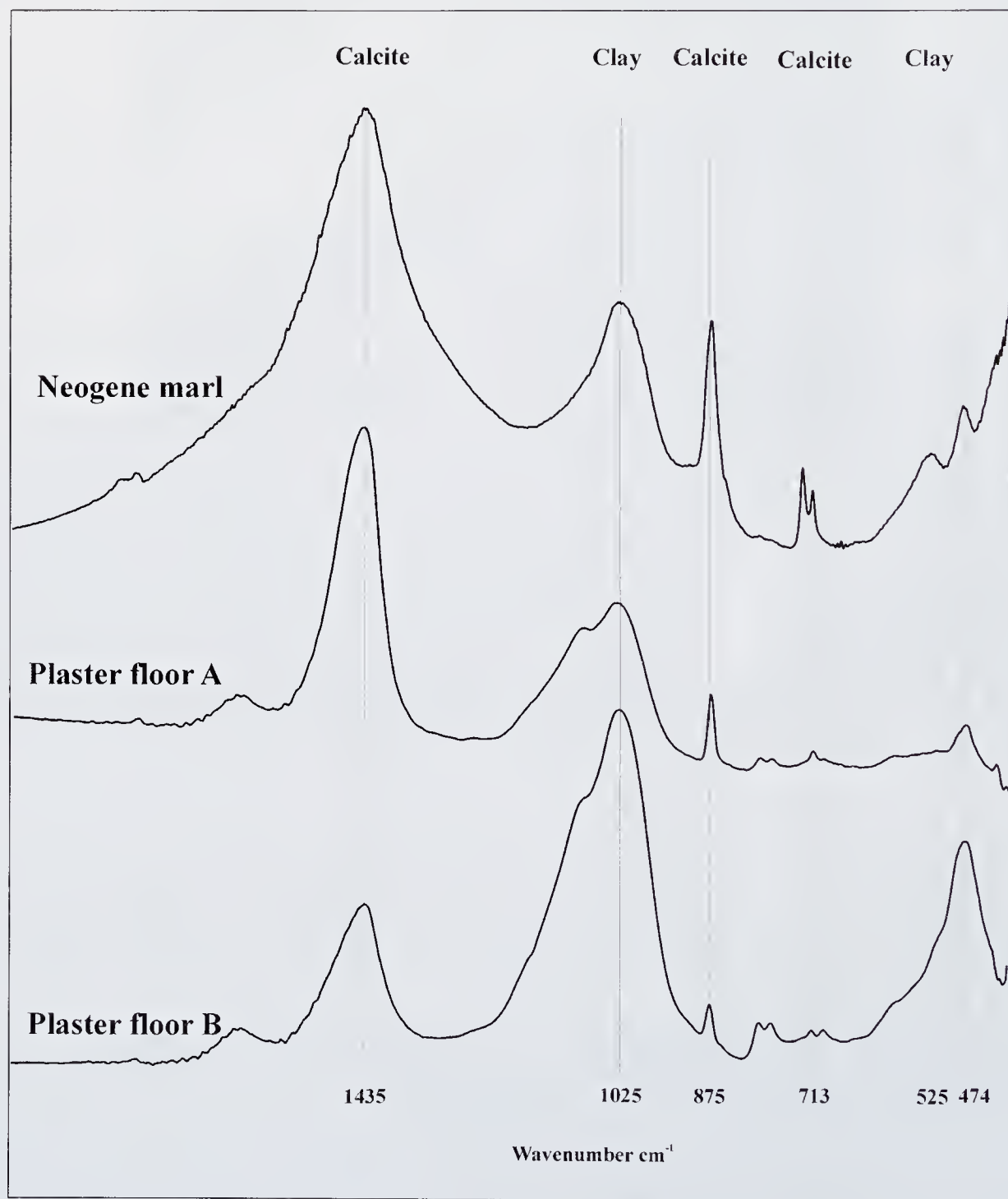


FIG. 7. FTIR spectra of two plaster floor samples and a Neogene marl for comparison. Note the disappearance of the pronounced 525 cm^{-1} peak assigned to hydroxyl bonds of the clays in the plaster floor samples due to heating.

there are no signs of secondary burning, nor were any hearth features detected on the surface of the particular areas sampled. Thus it is argued that the clay was a constituent of the marl, burnt during the lime production and not during burning activities on the floors.

The occupational deposits between the plastered floors comprise large quantities of dispersed calcitic plant ash, charcoal fragments, and other charred plant material, fragments of lime plastered floor, burnt soil aggregates, and a few pieces of burnt bone (FIG. 8). These deposits are usually compacted with only a few chamber voids. They probably represent raked-out hearth material mixed with burnt food remains. In a few cases the occupational deposits were levelled before a new floor was constructed. This is particularly evident when repairing of the previous floor is observed (FIG. 9). In this case only a thin lime floor, a few mm thick, was laid enveloping a thin layer of dirt.

DISCUSSION

The presence of considerable quantities of lime lumps in the plaster floors of Drakaina Cave is most likely attributed to the practice of 'hot mixing' or 'dry slaking' of lime direct with water and poor mechanical combination of the material prior to application (Hughes *et al.* 2001). Thus quicklime (the product of limestone burning) was not slaked with water and let mature in pits or special containers to become a putty prior to manufacture, but has been most probably directly mixed with wet aggregate and applied on the floor surfaces, or on the underlying deposit (cf. Holmes and Wingate 2002, Hughes *et al.* 2005). This process is of low water demand, but a significant proportion of the lime does not react immediately with the added water. Nevertheless, the presence of lime lumps offers the opportunity of identification

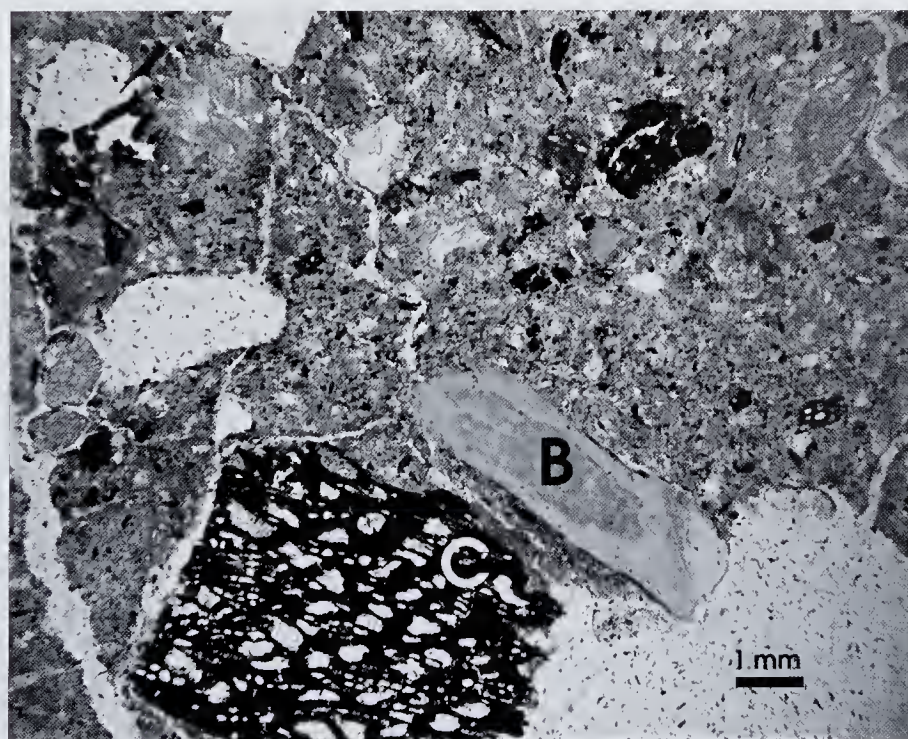


FIG. 8. Photomicrograph of occupational deposits between the floors. A charcoal (C) and a burnt bone fragment (B) are set in an ashy grey matrix rich in charred particles. Crossed polarized light.



FIG. 9. Resurfacing of a compact thick plaster floor (D) by applying a thin lime layer (B) on top of the accumulated dirt (C). A new increment of dirt (A) is observed on top of the resurfaced lime layer (B)

of limestone provenance. In this case, the nearby soft calcareous Neogene sediments were used as a raw material for lime production.

As a consequence of the above method, the preparation of lime does not require special storage areas or containers, and the lime can be brought into the site as a light, solid raw material. Indeed, the weight of the original limestone and marl is reduced to about a half after being calcined and can be as well easily broken in smaller pieces (Holmes and Wingate 2002). Ethnographic and architectural records document that ‘hot lime’ mixes have better setting and bond properties than mortars made by mixing lime in the form of mature putty (Moropoulou *et al.* 1996; Holmes and Wingate 2002; Hughes *et al.* 2005). Furthermore, specifications for floors are reported that can account for some of the observed features of the Drakaina plaster floors. As Holmes and Wingate (2002) remark, there are descriptions of floors with base fills of broken stone and charcoal that are overlain by a mortar mix of gravel, lime and ashes, and finished by polishing with a grit-stone. The fine charcoal observed in the lime floors in Drakaina may be due to the addition of ashes in the mixture. Furthermore, the presence of small amounts of burnt clay in the lime floors of Drakaina might have given some ‘hydraulic’ properties to the construction. Hydraulic lime hardens even in damp conditions, and floors made with the addition of hydraulic lime are also usually more durable and are damp-resistant (Holmes and Wingate 2002). However, we do not know how much they mastered this technique of making hydraulic lime in Drakaina, and if it was an accidental, unintentional result (cf. Affonso and Pernicka 2001).

A review of the use of lime in the Neolithic of the Near East (Goren and Goldberg 1991; Affonso and Pernicka 2001) suggested that lime production was a limited activity that did not require as much intensive labour as was previously thought. Small-scale lime burning as a rudimentary and most likely seasonal activity is probably the explanation for the low quality and unstandardized lime production observed in the Neolithic of the Near East. Indeed, the frequently observed signs of incomplete transformation to lime in Drakaina Cave are in agreement with the above explanation. Nevertheless, special effort and planning was involved in the manufacture of the lime plastered floors in Drakaina Cave, if we consider (a) the selection of the raw materials used, (b) their transformation to lime, (c) the transportation of the raw material(s) into the cave, (d) their on-site processing (i.e. mixing of different materials) and/or (e) the on-site preparation preceding the floor construction.

The nature of the occupational deposits left on the floors is particularly informative. The lack of even microscopic remains of animal dung, or large quantities of phytoliths, precludes the possibility of stabling activities, or of plant food processing/storage. This lack of evidence for substantial food processing or storage in the cave is in agreement with the results of the archaeobotanical study of the site (cf. Sarpaki in preparation). It is of interest to note that traces of animal dung were located in the layer with mixed Chalcolithic and Early Bronze Age finds, where plastered floors were not identified. This may indicate a change in the use of the cave towards the end of the Neolithic.

The phosphate alteration on the floor surfaces is therefore rather attributed to processing of animal products and meat in agreement with the wood ash remains and the burnt bones associated with them. High phosphate content in the soil has been used as a proxy of sites characterized by meat and other food processing activities (Schuldenrein 1995).

The incorporation of occupational debris into the basal parts of the lime floors implies that the surface of the floors was not properly and regularly cleaned, at least in the last cycle of

their use. The dislodged plaster aggregates and the dispersed deposits formed during the human activities were used as a foundation layer upon which the new lime plastered floor was laid. Since the incorporated material in the foundation layer is of pure anthropogenic origin, it is precluded that it was imported from outside for structural reasons to elevate the floor level (cf. Matthews *et al.* 1994).

ARCHAEOLOGICAL IMPLICATIONS

The construction of lime plastered floors in Drakaina Cave over an area of at least 48 m² is a repeated pattern, occurring at intervals over a long period of time (c.5400–4500 BC). This pattern points to a rather special role of the site for the Neolithic society of the region. During the Late Neolithic and the Chalcolithic of Greece an increase in cave occupation is observed (Demoule and Perlès 1993), which in some cases might be related to an expansion of herding and mixed farming communities into hillside areas (Halstead 2000). In this line of thought it would be expected that a cave could have been used as a pen, or as a seasonal habitation place.

Drakaina Cave preserves well-prepared features, which show a remarkable consistency in the materials used for their construction over a long period of time. Given the time span of almost a millennium, the number of observed floors, namely four, is rather small for an intensively inhabited place. Although it cannot be totally excluded, there are no indications that worn out plastered floors were taken off before a new one was constructed. Therefore the original number of the constructed floors should correspond, more or less, to the number of observed floors, plus a few more that were totally destroyed and incorporated inside the occupational debris. In this line of thought, it might be postulated that Drakaina was not a regular habitation site.

The significance of the site is even inscribed in the quantity and quality of the deliberately deposited artefacts there (Stratouli 2007). They include various painted and incised pots, which occur mainly fragmented (cf. Chapman 2000), numerous projectiles, some pendants and several fragments of bracelets made of *Spondylus gaederopus*, being of local and non-local origin, as well as cutting-edged tools made of gabbro, beads made of talc, fragments of marble vessels, and obsidian artefacts, which were imported to the island through complicated exchange networks (cf. Kilikoglou in preparation; Kiriati in preparation; Melfos in preparation; Stratouli and Melfos 2008).

To sum up, it seems very likely that the construction of the durable lime plastered floors and the consistency in the materials used in their construction could be read as evidence of invariance and traditionalism, which, in turn, have been defined as characteristics of ritual (cf. Bell 1997, cited in Boivin 2000: 383). Thus, if we exclude the possibility that Drakaina was used as a simple habitation site, we can read in the repeated pattern of lime plastered floors a communal, institutionalized practice, by which the former deposits are buried or sealed, contributing to acts of remembering or forgetting the past by the living community (cf. van Dyke and Alcock 2003: 2). In this respect, the cave could be a form of monument in its social environment hosting various events of social and/or symbolic meaning, such as feasting (Stratouli 2005; 2007).

No doubt, there are still many issues to investigate with regard to the behaviour of the cave users, such as the time pattern of the lime floor construction and the nature of the activities

having taken place on-site. At present, the identification of the floor construction in Drakaina Cave has given ground to further considerations and analyses, including the examination of a greater number of Neolithic deposits through detailed micromorphological analyses.

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UNPUBLISHED POTTERY FROM PHYLAKOPI¹

THE 1911 EXCAVATION

Surviving records of the 1911 season at Phylakopi and the association of some of the pottery with specific contexts were the subject of earlier research.²

The pottery discussed here, all of it stored in the Melos Museum, is likely to have come from the same excavation, though there is uncertainty over some pieces (see below). Other 1911 material in Melos consists of a small number of non-ceramic finds and ceramic objects other than vessels. It is hoped to publish these in the near future in a further short article. A

¹ The research on which this article is based was carried out in Melos between Spring 2003 and Autumn 2007, under the auspices of the British School at Athens and by permission of the 21st Ephorate of Prehistoric and Classical Antiquities (Director: Dr Marisa Marthari). It was financially supported by the British Academy (Small Research Grant), the Institute for Aegean Prehistory (Research Grant), and the Carnegie Trust for the Universities of Scotland (Travel Grant). To each of these bodies is owed a substantial debt.

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In planning the project I much appreciated the encouragement and support of Professors Christos Doumas and Peter Warren. In its execution I owe particular thanks to Dr Penelope Mountjoy, who readily agreed to my request to publish the greater part of the Mycenaean and Minoan imports in a separate article, which will appear in a subsequent volume of the *Annual*. I am grateful too for her assistance with the LM I material included here though, needless to say, she is not to blame for any errors. I am also greatly obliged to Drs Birgitta and Erik Hallager, Professor Sandy MacGillivray, and Dr Peggy Sotirakopoulou for taking the time to visit Melos and give me the considerable benefit of their advice. Dr Susan Sherratt very kindly read a rather untidy draft and offered most helpful comments, though she should not be thought in any way responsible for defects in the final version. Several scholars allowed me to see and refer to

unpublished articles, some though not all of which have subsequently appeared: Professors John Cherry, Jack Davis, and Oliver Dickinson, Dr Irene Nikolakopoulou, Professor Colin Renfrew, Dr Christina Televantou. Access to some of these texts was arranged through the kindness of Dr Neil Brodie. I thank also Richard Catling for information and references. The encouragement and editorial advice of Dr Nicoletta Momigliano, much appreciated, were crucial in the final stages of the work.

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Abbreviations: a/o = all over; B&R = Black-and-Red; BS(J) = Bridge-spouted (Jar); cc = circumcurrent; CCW = Coarse Cycladic White; CLP = Coarse Local Painted; CW = Cycladic White; CWS = Coarse White Slip; DB = Dark Burnished; DFI = Dark-faced Incised; DW = Dark Washed; ECW = Early Cycladic White; EMP = Early Matt-painted; FM = Furumark Motif; FS = Furumark Shape; GM = Grey Minyan; HP = Hard Painted; HPD = Hard Painted Domestic; HVPL = Horizontal vertically pierced lug; IRB = Inturned-rim bowl; i/s = inside; LL = Later Local; LCW = Late Cycladic White; LLP = Later Local Painted; *MMCat* (see Barber 1974, 1–2); MP = Matt-painted; o/s = outside; PCD = 'Pot Catalogue Descriptive' in PNB (see Barber 1974, 2), PNB = Pottery notebook of the 1911 season at Phylakopi (see Barber 1974 1, 2); R&B = Red and Black; RSH = Round-sectioned handle; RW = Red Washed; SG = Semiglobular; SMP = Soft Matt-painted; SNB = Site notebook of the 1911 season at Phylakopi (see Barber 1974, 1–2); TTR = Tortoiseshell Ripple; VHPL = Vertical horizontally pierced lug; WT = Wheel Thrown.

² Barber 1974. Since then some new sources of information have come to light. These will be described in a forthcoming publication by Drs Michael Boyd, Neil Brodie, Rebecca Sweetman, and colleagues but are not directly relevant to the content of the present article.

concordance of the information so far collected about the identification and provenance of vases with contexts from the 1911 season is also in preparation.

OBJECTIVES

The primary objective of this paper is to make generally available previously unpublished pottery, a small step towards enlarging our understanding of the 1911 season, the ceramic and broader history of the site of Phylakopi, and of the prehistoric Cyclades in general.

Description of this pottery also offers an opportunity to reassess aspects of the present state of Cycladic pottery studies which, in several respects, have lagged behind those of Crete and mainland Greece, and to make some suggestions as to topics which require attention.

Although the chronological range of broadly defined pottery classes is difficult to specify precisely, there is hope of greater accuracy with some individual shapes, features, and motifs. Many of these require study—indeed, an army of researchers could easily be deployed on the examination of details of the Cycladic ceramic repertoire—and the most valuable contributions in the immediate future will be careful studies of individual shapes and decorative elements, with particular reference to their sources and chronology.

Such comments as are offered here do not represent a full review of all aspects of the Cycladic pottery sequence. Indeed, the implausibility of such an attempt, based only on this material, is exemplified by the treatment of decoration, since the range of motifs represented—and consequently such remarks and comparisons as can be made—are inevitably incomplete. Nevertheless I hope that here too will be found at least some stimulus to research.

Advances in understanding of the Phylakopi pottery which are directly derived from study of the material presented here are summarized in the Epilogue.

THE MATERIAL³

This consists largely of potsherds (see Appendix), whose existence came to my attention during the British School excavations at Phylakopi in the mid-1970s. A smaller group is likely to be from 1911 but might be from the 1974–7 excavations. In addition, there are a substantial number of whole vases or large fragments, several of them bearing original excavation numbers, which were not found during my original study of the 1911 finds (Barber 1974). One or two previously published pieces are also included, where further description or illustration seemed desirable.

There seems little doubt that the main body of sherd material comes from the 1911 season at Phylakopi (Barber 1974). No major excavations which could have been the source of such a large amount of important material took place at the site between 1911 and 1974 and, occasionally, markings on the sherds can be associated with the 1911 season. One CW sherd was found to join a 1911 vessel (Barber 1974, 33, no 234, MM449), on display in the museum. It is also significant that the Dark Burnished class, which was almost entirely ignored in the 1904 report but recognized in 1911 to be of much greater significance (Dawkins and Droop 1911, 19–21), is well represented.

Of the large sherds and more or less complete vases, either on display or in the museum store, some bear original excavation numbers (sometimes only partly legible) proving that

³ For details of sherd storage, see Appendix.

they are from 1911. Most also carry modern Melos Museum Catalogue numbers. While the latter are usually clearly distinct from the former, which can be recognized by comparison with fully attested examples, there are one or two cases where there is uncertainty.

Further pieces, without old excavation numbers and without any catalogued indication of provenance in the modern Museum Catalogue beyond that of 'Phylakopi', have been assumed to be from the 1911 season on the grounds that (a) material (both whole vases and potsherds) from the nineteenth-century excavations is in the National Archaeological Museum in Athens, not on Melos and (b) more recent Museum Catalogue entries are specific as to the sources and dates of acquisition of such items.

This body of pottery includes a substantial amount of Late Bronze Age imports, most of which will be described by Dr Penelope Mountjoy in a separate article. The chief exceptions to this are the Late Minoan I pieces, which are included here because of the strong interrelationship between Cycladic and Minoan pottery in that period.

ORGANIZATION

Selection

Since it was not feasible to publish all the material in detail, a selection was made for cataloguing. The final sherd catalogue comprises 825 pieces, although this total includes some Late Bronze Age pottery and a few small finds which were subsequently omitted from this article. In addition to these, there are 58 other items which are listed by their MM (Melos Museum) numbers, and old excavation numbers where available. Approximate counts of uncatalogued items are also given. Where two counts are given, the second (in *italics*, see Appendix) relates to items from Boxes A–E.

Pottery classification

The material has been ordered essentially according to the classes of the original publication (Atkinson *et al.* 1904), followed also in Barber 1974 and, more recently, in Susan Sherratt's impeccable catalogue and discussion of the Phylakopi pottery in the Ashmolean Museum (Sherratt 2000). There are, however, a number of differences.

Middle Cycladic Dark Burnished pottery barely featured in the first report, several minor categories (e.g. Coarse White Slip) were not separately identified, and only a limited amount of Coarse ware was illustrated. The various kinds of imported pottery are now much better understood and can be categorized accordingly.

As regards the Early Cycladic I–II material, advantage has been taken of the new study by Renfrew and Evans (2007) to abbreviate here discussion of the chronology and distribution of forms.

The two original categories of 'Geometric' pottery (EC III and early MC) have been here listed together, though they can usually be related to those of Atkinson *et al.* 1904 (viz. 'Vases with Geometric Designs in Lustrous Paint' and 'Geometric Pottery with Designs in Matt Black') on the basis of the fabric types for which the terms Early Matt-painted (EMP) and Soft Matt-painted (SMP), respectively, adopted in Renfrew *et al.* 2007, have been used. The reasons for this procedure are discussed further below, at the beginning of the relevant section.

The presentation of each major class is synoptic. A short bibliography consists of basic references. These include my doctoral thesis (Barber 1978) and, where relevant, the chapter

on Middle Cycladic pottery (Barber 2007) from the publication (Renfrew *et al.* 2007) of the 1974–7 excavations at Phylakopi. The former, although now outdated (a few subsequent discoveries have been added to the contexts noted), contains extensive lists of Cycladic pottery finds, while the latter reviews dating evidence for each of the shapes there represented. It is hoped that both may be of use as springboards for future work. Information and references given in those texts are not normally repeated here, though they may be used as the basis for statements made.

Fabric

Brief comment is made on important characteristics of the fabric of each class, but understanding of these is mostly taken for granted and reference made to the new descriptions and analyses contained in Vaughan and Williams 2007.

Techniques of manufacture

The difficulty, which arises to some degree in all periods, of distinguishing between hand- and wheelmade vessels in the local pottery of Phylakopi has been pointed out by both earlier and recent commentators (Atkinson *et al.* 1904, 94, 108; Sherratt 2000, 224, 246, 278, and index s.v. ‘pottery, wheelmade’). It has been suggested that this may arise partly from the fact that some vessels were finished by methods which left little trace of the use of a wheel. In any case, the technical distinction between hand- and wheelmade pottery is not so straightforward as has often been assumed (Berg 2002, 187). The bulk of the vessels in the Early and Middle Cycladic periods appear to have been handmade and this method of manufacture continued to be used for a considerable proportion of vases into early LC times (*ibid.* 237–40 and figs. 8–10).

The problem of distinguishing between methods has not been addressed here and comments are made in the catalogue entries only when there is clear visual evidence of wheel manufacture.

Shapes and decorative motifs

Within each class, a series of catalogued pieces ordered by shape is followed by a further series (consisting almost entirely of body sherds) arranged by decorative motif. The entries for the latter are less detailed. Approximate counts of motifs represented among the pieces sorted by shape (both catalogued and uncatalogued) have also been appended. The sorting is not entirely consistent, since a few feature sherds have been included with the decorated.

Where possible, the shape entry is accompanied by a set of references, and by a brief summary of find-places and likely chronology. Because of the considerable disparity in the availability of information, it has been impossible to achieve complete consistency in this and, when such comments are lacking, it may be assumed that no constructive observations are possible. In cases where there is a single representative of the form, information is given within its catalogue entry.

Shape descriptions are given only when unavailable, or incomplete, in the sources quoted: these are normally Barber 1974 (all phases), Renfrew and Evans 2007 (Early Cycladic), Barber 1978 (Middle and Late Cycladic), Barber 2007 (Middle Cycladic), or occasionally for clarification.

Catalogue entries

The individual entries are set out thus, line by line:

1. A serial number in bold type is followed (in brackets) by the catalogue number assigned during the study process. The former is for ease of reference within this article, the latter to enable identification of the pieces in the Melos museum. Next comes the standard designator Φ 11/[n.], where Φ 11 indicates that the piece is from the 1911 season at Phylakopi and [n.] the number (or letter) of the box in which it was found (see Appendix).

Lettering. Apart from the boxes marked A–E (see Appendix), two other letters are used in the catalogue entries: K signifies sherds found in the boxes marked Μυκηναϊκά but subsequently identified as, in fact, Cycladic; AK indicates that the item has come from Uncatalogued (Ακατάγραφα) pottery in the Melos Museum collection.

Items which are already part of the formally catalogued Melos Museum collection are put at their appropriate archaeological place (by shape or motif) in the sequence of material but have either a Melos Museum (MM) number alone, or an old excavation plus a Melos Museum number, according to the procedure adopted in Barber 1974. A very few pieces, which have not been formally absorbed in the Melos Museum catalogue, have an old excavation number alone.

2. Dimensions.
3. Description; condition.
4. Fabric.
5. Surface treatment, colour, condition (of surface).
6. Paint and decoration.
7. Comment and parallels.

Parallels for individual entries are offered when felt to be helpful for a variety of reasons. Numerous further similarities could be quoted with published material from (e.g.) Kea, Thera, Naxos (especially Mikre Vigla) and the Ashmolean Catalogue (Sherratt 2000). It may be worth giving thought to the creation of a database of Cycladic pottery.

It is important to note that many entries do not contain all the elements listed above. For example, where the fabric or surface treatment is typical of the class as a whole, no further comment is offered in the individual entry.

Relative chronology/terminology

Where references are made to the dating of features of shape, decoration etc., these are normally either to the stratigraphy of Phylakopi or to the overall Cycladic chronological system. For Phylakopi, the system is that employed in Barber 1974 which is essentially that of the original report. For the Cyclades as a whole, it follows Barber 1987 (20–34, with fig. 24). The Cycladic framework has long been closely related to that of Phylakopi, with the following correspondence: Phylakopi ‘Pre-City’–EC I; Phylakopi I–i–EC II; Phylakopi I–ii–EC III (A–)B early; Phylakopi I–iii–EC III B; Phylakopi II–i–MC early; Phylakopi II–ii–MC late; Phylakopi III–i–LC I; Phylakopi III–ii–LC II; Phylakopi III–iii–LC III. For the disregard of Phase II–i, see Barber 1987, 30.

The relationship of this system to that formulated in recent excavations can be seen in Renfrew *et al.* 2007, figs. 2. 1, 2. 2 (pp. 9–10).

I have preferred to retain a conservative terminology, partly to enable easier combination of this material with previous publications (including Atkinson *et al.* 1904; Barber 1974;

Sherratt 2000), partly because, although some aspects of the Cycladic sequence (e.g. the transition from Early to Middle Cycladic) need refinement, it is greatly preferable to redefine an existing system (Caskey 1978) rather than to construct something completely new, whose relationship to its predecessor will need continual elucidation and which will itself inevitably invite replacement in due course.

Illustrations

The majority of pieces are illustrated by drawings, the remainder (including almost all those in the decorated sections) by photographs alone. Relatively few of the drawn pieces are also shown on plates. Readers should accordingly keep in mind that the plates are not fully representative and a complete picture of the material can only be gained by inspection of both series of illustrations in combination.

For the Later Local class, where the motifs are mostly well-known Minoan types, the decoration has been shown by setting photographs alongside the profiles within the figures.

In the Dark Burnished class, where white painted decoration is entirely subsidiary (mainly in the grooves of beaded rims), this has not been shown but its position indicated by a W on the drawings. B is very occasionally used in the same way to indicate dark linear decoration on light fabrics.

Scale

The drawings and photographs are at a scale of 1:2, except where stated otherwise. The scaling of the photographs is approximate.

GENERAL

It is hoped that this method of presentation will enable scholars to get a clear idea of the range of material and to assess its potential for the further study of which it is undoubtedly worthy. Overall, the writer has been struck again, as most researchers surely are, by the haphazard nature of pottery analysis, in contrast to the apparent authority of the printed text—particularly when such a wide range of material is involved—and the numerous possibilities of error or uncertainty in the identification of shapes and fabrics, and of imported items. For the latter, recognition often depends on accident—which specialists happen to have seen the material. He hopes that mistakes have been kept to a minimum but welcomes all suggestions and corrections.

EARLY CYCLADIC POTTERY

The pottery in this section relates to that briefly described in Atkinson *et al.* 1904, under the headings ‘The Earliest Pottery’ and ‘Some other Early Wares’.

EARLY CYCLADIC 1–11

Atkinson *et al.* 1904, 82–7.

Renfrew and Evans 2007, 129–56, 177–8 (with further references).

The fabric of 1–6 is that of Heavy Burnished Ware, as described in Vaughan and Williams 2007, 94.

Open bowl with flattened rim

The flattened rim form is hard to parallel. Nearest are Renfrew and Evans 2007, 147 P293 and fig. 5. 6: 1; Wilson 1999, 122, III-287, -288 and pls. 31, 85; Sotirakopoulou 1999, 414 OT. 1 and fig. 17, pl. 42.

Open bowls are common in EC I-II (cf. Renfrew and Evans 2007, 155-6 and figs. 5. 9, 5. 10, material from excavation to west of site).

1 (607) Φ 11/1 (FIG. 1)

D. c.o.30?; H. o.o4.

Rim.

Brown clay with greyer core.

Smoothed i/s; covered o/s with rich red slip, now rather worn and apparently matt.

2 (608) Φ 11/1 (PLATE 1)

D. c.o.30?; H. o.o22.

Rim.

Probably from same bowl as **1**.

Uncatalogued: none.

Rolled-rim bowl

As Renfrew and Evans 2007, 136 P209 etc. and figs. 5. 1: 1 etc., 5. 9; Sotirakopoulou 1999, fig. 16 *b* (various pieces).

In the recent excavations these bowls were most common in Phase A1 (probably EC I), less so in A2 (EC II) (Renfrew and Evans 2007, 136, 141).

3 (27) Φ 11/5 (FIG. 1)

D. ?c.o.35; H. o.o4.

Rim.

Brown, blacker i/s; quite shiny where not worn; marks of burnishing tool visible as vertical stripes on o/s.

4 (29) Φ 11/23 (FIG. 1)

D. ?c.o.30; H. o.o42.

Rim.

Dark red-brown, quite shiny where not worn; marks of burnishing tool visible.

5 (25) Φ 11/1 (FIG. 1)

D. o.o22; H. o.o95.

Rim and much of profile; the rim beaded i/s.

Dull red.

Uncatalogued: none.

Bowl with rolled and beaded rim

This piece, which resembles EC Heavy Burnished rather than later burnished classes, is difficult to parallel.

6 (381) Φ 11/28 (FIG. 1; PLATE 1)

D. c.o.24; H. o.o5.

Rim, with horizontal strap handle from just below rim.

Brown-black; the outside very worn.

Uncatalogued: none.

Jar

7 (? (MM383)) (FIG. 1)

H. o.o142; D. o.o94 (restored).

Complete (made up of several joining fragments and substantially restored). The rim everted; in the surviving bit of the eversion is a perforation (presumably matched by at least one other).

The biscuit is invisible: the fabric may be related to that of the 'Early Dark Wash' class of the recent excavations (Vaughan and Williams 2007, 100).

Slightly streaky red wash all over except underneath; slightly glossy (?lightly burnished) in places.

?Traces of white decoration.

The shape combines the low centre of gravity of the DFI pyxis **19** and the everted lip of the collared jar (Wilson 1999, 89 II-796 and pls. 22, 71).

There are slight traces of an old excavation number underneath, now illegible.

Uncatalogued: none.

EARLY CYCLADIC III A

Barber and MacGillivray 1980, 151.

The fabric is similar to that of the EC III A black- or red-burnished vessels, mainly in Anatolian shapes, found (e.g.) at Ayia Irini (Wilson 1999, 125 etc.) and at Mt Kynthos on Delos (MacGillivray 1980, 8–12).

EC III A pottery is found widely in the Cyclades, including at Akrotiri (Sotirakopoulou 1986, 303–4; 1999, 236–40 etc.; Nikolakopoulou *et al.* 2008). It is, however, rare at Phylakopi (Barber 1984, 88, 94 n. 1; Evans and Renfrew 1984, 67—from Phase B), a fact which lends these pieces a particular interest. There is, however, an important group from elsewhere on Melos (Rivari) (Televantou 2008; Sampson and Fotiadi 2008).

Tankard

A classic EC III A shape.

Pieces from Kea have slip/burnish on the rim *and* the neck inside (Wilson 1999, 125). This is true of 8, but not of 9 (on inside of lip only).

8 (28) Φ 11/5 (FIG. 1; PLATE 1)

D. c.o.125; H. 0.05.

Rim, with upper spring of handle.

Fine thick grey core between thin buff outer layers. The surfaces black, slipped and burnished to a shiny finish.

Cf. Wilson 1999, 126, III–319 etc. and pls. 33, 86.

9 (379) Φ 11/1 and 24 (FIG. 1)

D. c.o.102; H. 0.027.

Rim (2 sherds joining + a third body sherd perhaps from the same vase, kept together); thin walled; probably this shape.

Red-purplish, burnished, all over o/s and on inside of lip (redder); the body sherd has an irregular red patch on interior.

?Bowl

10 (667) Φ ?11/B (FIG. 1)

D. c.o.20; H. 0.044.

Rim fragment of ?bowl, including beginning of a sharp carination, with a vertical plastic stripe following the contour of the vessel from rim to carination. Where the top of the stripe projects from the rim is a groove, possibly from string wear.

I/s brown-black; o/s brown-orange, burnished, close to 11 etc.

Some resemblance to vases with horizontal lugs from Kea Periods II and III: Wilson 1999, 106 III–91 and pls. 25, 75.

?EC III A

Small closed vessels

11 (378) Φ 11/23 (FIG. 1)

D. c.o.05; H. c.o.031.

Rim, with out-turned lip; the interior slightly rough below the lip.

Thin, fine, light brown fabric.

Brown-black, originally highly glossy, all over o/s and on i/s of lip.

Cf. MacGillivray 1980, 28 no. 9 and fig. 11 (pyxis); also perhaps Wilson 1999, 129 III–372 and pls. 34, 88 (jug).

12 (611) Φ 11/5 + 23 (FIG. 1; PLATE 1)

H. (larger sherd) c.o.035.

2 body sherds (not joining), with stump of small strap handle; the interior very uneven.

Fabric and finish as 11.

Black-brown exterior.

An uneven interior, especially at the handle position, is seen in EC III A pieces from Kea (e.g. Wilson 1999, 102 III–12 etc. and pls. 23, 72).

13 (394) Φ 11/5 (FIG. 1)

D. (of rim) ?c.o.025; H. 0.043.

Part rim and profile, including RSH; the rim is wide in proportion to the size of the vase and the opening must have been very narrow.

Fabric similar to 8.

Brown-black o/s, as 11–12; very worn; traces of tool marks; smooth i/s except for neck.

Closing jar?

14 (679) Φ ?11/A (FIG. 1)

D. c.0.29+; H. 0.067.

Rim; the outer surface of the rim is crescent shaped and slopes strongly, though not sharply, inwards.

Thick red core, with some large white grits, also visible in surface.

The surfaces are black (i/s, o/s) due to firing.

O/s, a thin raised band at the point where the lower edge of the rim meets the body of the vase, decorated with ovoid nicks.

Cf. **128** (SMP); MacGillivray 1980, 34 nos. 237, 238 (the latter with relief decoration) and fig. 12 (EC II–III A).

Body sherds

15 (684) Φ ?11/D (FIG. 1)

D ?; H. c.0.044.

Body sherd from neck of amphoroid shape.

Greyish core with a few small white grits.

Surfaces red, probably burnished o/s.

Incised: band of narrow slashes at neck/body junction, defined below by a shallow groove.

Cf. Barber and Hadjianastasiou 1989, 72–3 with nos. 12–21 and fig. 5.

16 (491) Φ 11/8a (PLATE 1)

L. 0.078.

Body sherd of ?pithos; orientation uncertain.

Thickish grey core but non-gritty.

Incised, partly on slightly raised bands: one zone of lightly cut narrow grooves, then two of oblique strokes, inclining in alternate directions; then, parts of two more, in chevron arrangement.

Cf. Atkinson *et al.* 1904, pl. xxxiv. 2; Wilson 1999, 106 III–88 and pls. 25, 75; 139–40 III–508–9 and pl. 91.

?EC III A.

17 (492) Φ 11/8a (PLATE 1)

L. 0.047.

Body sherd, probably of same vessel as **16**.

Incised, on slightly raised bands: two zones of oblique strokes, inclining in alternate directions and separated by a blank (unraised) zone.

18 (512) Φ 11/8a (PLATE 1)

L. 0.039.

Body sherd of ?

Fine light brown fabric.

Black slip and burnish (lustrous) o/s.

Incised: diamond or zigzag with sparse hatching (the hatching similar to that on Atkinson *et al.* 1904, pl. v. 9); the trace of a second motif might belong to the tail of a creature as Atkinson *et al.* 1904, pl. v. 8 a, or another motif like the first.

Cf. Wilson 1999, 130 III–381 and pls. 34, 88, also perhaps Wilson 1999, 137 III–474 and pl. 91 for a similar style of decoration.

On grounds of fabric, fine surface and thin linear decoration, this piece is attributed to the EC III A burnished category rather than DFI, though there are significant relationships between the two classes (Barber 1984, 92 etc.).

Uncatalogued (all EC III A): none.

DARK-FACED INCISED (DFI), INCLUDING TALC WARE

Atkinson *et al.* 1904, 87–92.

Barber 1974, 17.

Barber 1978, i. 119–29, ii. 4–8.

Barber 1984.

Renfrew and Evans 2007, 165, 147 (Talc Ware).

Sherratt 2000, 222–3.

FABRIC AND SURFACE TREATMENT

The fabric is mostly that of the ‘Phylakopi I Incised’ class of the recent excavations (Vaughan and Williams 2007, 94; Renfrew and Evans 2007, 165). The pieces described here are quite fine and well levigated. The biscuit varies in colour from red-brown to black.

Sherds are often worn but the outer surfaces seem all to be burnished, sometimes slipped and burnished, though the lustre has usually gone.

The heavier sherds (32 etc.), which belong to the 'Talc Ware' class (Wilson 1999, 69; Vaughan and Williams 2007, 118–19), have been here associated with the DFI category, since neither the fabric (though much thicker) nor the incised decoration (though coarser) is dissimilar.

CHRONOLOGY AND DISTRIBUTION

Related material has been found elsewhere in the Cyclades (see above on EC III A), as well as on other Aegean islands, Crete (MM I A) and Mainland Greece (EH III and early MH). Its significance and position in the ceramic sequence at Phylakopi (middle phase of the First City) were clearly specified in the 1904 report but little material has been discovered in subsequent excavations (1911, 1974–7) and most of that appears residual.

The parallels drawn here with pieces from Ayia Irini Period III, while rarely absolutely precise, are both frequent and close enough to reinforce the suggestion (Barber 1984) of significant links between this class of pottery at Phylakopi and the Anatolian-related EC III A dark burnished pottery found widely in the Cyclades (see above). It seems therefore not unreasonable to suggest that this material represents either a local ceramic aspect of EC III A at Phylakopi (cf. Howell 1973, 85) or—perhaps more probable given its association with Geometric ware—a subsequent development directly derived therefrom. Any relationships with the finds from Rivari (see above) will be of great interest.

Finds of incised pottery from Period IV at Ayia Irini are few (four pieces in the index of Overbeck 1989b) indicating that it is not characteristic of the early MC period there. At Akrotiri it such material is found in Phase I of the recently reported sequence (Nikolakopoulou *et al.* 2008). The apparent contiguity in that phase of material dating from early EC III B (or earlier) to early MC suggests that it may cover a long period of time and that, at least for the present, the location of the DFI in the Phylakopi sequence should be regarded as defining its chronological position.

COMMENT

This intriguing class of pottery is important for the early history of Phylakopi and deserves fresh study. Finds have a wide geographical distribution and have not so far been thoroughly collated.

Pyxis

(a) Conical

Atkinson *et al.* 1904, 87–8 Shape 1.

Barber 1974, 17.

Barber 1978, i. 120–2, ii. 4–5.

The other main Cycladic source of examples of the conical pyxis form is Paros. Parallels and imports / exports can be found in EH/EM III–MH/MM I.

19 (–(MM364) (FIG. 2)

D. (rim) 0.092; (base) 0.103; H 0.12.

Complete profile (6 joining fragments; some restoration); below the rim a relief band; immediately beneath this one perforation survives (?of two); the base very slightly convex.

The colour varies from red to black o/s and is lightly burnished.

Incised: irregular, roughly parallel broad lines from below relief band to c.0.03 above base.

Cf. Atkinson *et al.* 1904, pl. iv. 3 (shape and decoration).

(b) Ovoid

The form is probably derived from EC II–III A shapes (Bossert 1967, 69 and fig. 4, 2; Renfrew 1972 pl. 9, nos. 2, 3; cf. also Tsountas 1898 pl. 9, no. 34; 1899 pl. 8, nos. 5, 7, 8, 12), of which Syros is the most prolific source.

20 (–(MM10)) (FIG. 2)

D. 0.078; H. 0.046.

Rim.

Grey-black; relatively highly burnished.

In relief: two wide, ridged grooves below rim; then incised: zone of triple herringbone, then cc groove, then part of zone of hatched zigzag.

Cf. **26** and Atkinson *et al.* 1904, pls. iv. 7, 9 and v. 8 *b* (motifs, though not in combination); also Furness

(Pyxis Lids)

(a) Domed

21 (507) Φ 11/8a (FIG. 2)

D. c.o.085; H. o.o15.

Two fragments, not joining; concave sided; the longer piece has part of an oblique perforation running from the upper surface to the concavity.

(b) Flat-topped

22 (508) Φ 11/8a (FIG. 2)

D. c.o.105; H. o.o29.

Fragment, with straight side.

Reddish o/s, rough buff i/s.

Duck vase

Atkinson *et al.* 1904, 88–91 Shape 2.

Barber 1978, i. 122–4, ii. 5–7.

Mainland parallels are late EH or early MH (Goldman 1931, 182). A few Cycladic pieces have been found in clear MC contexts but the combination of the duck vase shape and incised decoration of the kind discussed in Atkinson *et al.* 1904, ch. 4, §4 seems characteristically early EC III B and it should be noted that the origins of the form are in EC III A.

23 (59) Φ 11/8a (FIG. 2)

D. (mouth) c.o.019; H. o.o53.

Part of neck, with strap handle, pierced at the bend. The rim does not survive.

Brick coloured biscuit.

Dark purplish o/s with roughly smoothed surface.

Incised: three lines surviving at front of top of spout; parts of two at bottom of break (i.e. junction of spout with body).

Cf. Overbeck 1989a, 12 no. 89 and fig. 37, pl. 6.

24 (655) Φ ?11/C (FIG. 2)

D. (of spout opening) o.o21; H. c.o.069.

Spout and complete strap-type handle; the mouth destroyed.

The outer biscuit light brown, the inner grey-black.

Surface colours as biscuit; smoothed o/s—not now possible to tell if burnished.

Incised decoration: traces of a groove where the spout joins the body, crossing the base of the handle. To the left of the handle is part of a rectilinear motif with interior lines, perhaps a potmark similar to Atkinson *et al.* 1904, 179 19.

1956, 202 and pl. xxiii. 7, 12–13, 19 (from Ayio Gala, Chios). Renfrew and Evans 2007, 165 P241 (described as a conical pyxis) and fig. 5. 23: 8, pl. 23 *c* is identical with **20** in shape, grooving, and decoration.

Grey-black.

Incised: parts of double loops, with row of dots in between the lines.

Cf. Wilson 1999, 137 III-474 and pl. 91 (kerbschnitt filling).

Incised: diamonds or trellis pattern.

Cf. Atkinson *et al.* 1904, pl. iv. 2 (shape); **150** (decoration–light-on-dark EMP).

25 (513) Φ 11/8a (PLATE 1)

L. o.o6.

Body sherd.

Black o/s, grey i/s.

Incised: part of a curvilinear ‘star’ and of one enclosing circle, as Furness 1956, 191 nos. 1, 3 and fig. 11, pl. xx. 4, 6 (from Kalymnos); also Atkinson *et al.* 1904, pl. v. 12 *a* (Wilson 1999, 124 III-307 and pls. 32, 86, is in a somewhat similar style).

26 (–(MM12)) (FIG. 2)

L. o.o75.

Body sherd, probably from upper surface of duck vase.

Fine dark grey fabric.

Burnished o/s.

Incised: two zones of parallel rows of chevrons, separated by a cc line.

Cf. Atkinson *et al.* 1904, pl. iv. 6 (vertical), 9; Wilson 1999, 111 III-149 and pls. 28, 77.

Kernos

The details of the form are unusual and the kernos is not a standard shape in DFI, although complex kernoï are found in EMP fabric (Atkinson *et al.* 1904, 102 Shape 12) and 'composite vases consisting of two, three or four cups' are said (*ibid.* 102) to be 'of common occurrence' in the same material.

27 (—(MM253)) (PLATE 1)

D. (max. of 1 unit) c.o.065; (bases) c.o.04; H. (of completely preserved unit) 0.061.

Part (joined from 6 fragments and partly restored) of triple vessel. The units are roughly round, with a slight peak; flat bases. They interconnect via channels of D. 0.015. No outlet is preserved.

Quite fine, sandy fabric, non-gritty.

The surfaces red, lightly burnished, not well preserved.

Incised decoration: 6 pairs of grooves from c.o.02 above base to meet at the peak of each unit.

Cf. Atkinson *et al.* 1904, pl. iv. 1 for linear style; iv 2 for multiple vessel (double pyxis); for the general form, cf. Thimme 1977, 518–19 no. 353 and pls. p. 334 (in steatite).

*Body sherds***28** (509) $\Phi 11/8a$ (PLATE 1)

L. 0.052.

Body sherd of ?pyxis.

Red slipped and burnished o/s; plain grey-black i/s.

Incised: hatched triangles, white-filled.

Cf. Atkinson *et al.* 1904, pl. iv. 2.

29 (510) $\Phi 11/8a$ (PLATE 1)

L. 0.044.

Body sherd of ?pyxis; surface worn.

Black, probably burnished o/s.

Incised: parts of hatched zigzag.

Cf. Atkinson *et al.* 1904, pl. v. 8 b.

30 (511) $\Phi 11/8a$ (PLATE 1)

L. 0.05.

Body sherd, probably of duck vase.

Brownish, smoothed o/s.

Incised: parts of hatched zigzag and ?other motif.

31 (633) $\Phi 11/8a$ (PLATE 1)

L. 0.084.

Body sherd.

Brown; burnished o/s (worn).

Incised: cc band, doubling at one edge; in field above/below, tip of zigzag element (perhaps of thin triangle) with filling of slashes; on opposite side of cc band to the triangle, ?a thin cream-coloured painted line at right angles to the incised band.

No parallel for the combination of paint and incision.

The linear style seems to be of the more widely spaced kind represented by Atkinson *et al.* 1904, pls. iv. 1, v. 9.

TALC WARE/HEAVIER DFI

The cruder incising technique used for decoration of these pieces recalls that found on sherds from Kea (Wilson 1999, 133 III–433–6 and pl. 90) and Akrotiri (e.g. Sotirakopoulou 1999, 361 Ξ 120 and fig. 71 a, pl. 320; 400 A3/42 and fig. 72 b, pl. 328). Some of the latter are in Talc Ware. Taking into account also the material from Delos, an EC III A date is indicated.

*Ledged jar***32** (503) $\Phi 11/8a$ (FIG. 2)

D. ?c.o.30; H. 0.068.

Rim, with prominent ledge projecting at right angles from c.o.026 below rim; below this and attached to it, a VHPL.

Smoothed purplish o/s, reddish i/s.

Incised: to either side of lug, vertical strokes with oblique in between.

Cf. Wilson 1999, 111 III–153, 154 and pls. 28, 78; also 129 III–374 and pls. 34, 88 (for ledge and handle); also Melos Museum no. 59 (see below following 37). There are ledged vases among the material from Mount Kynthos (Plassart 1928 fig. 39).

Brazier?

Plassart 1928, 34–5 and figs. 33, 34.

MacGillivray 1984, 39 nos. 264, 265, 390 and fig. 13.

33 (504) Φ 11/8a (FIG. 2)

D. ?c.o.30; H. o.o5.

Rounded and finished edge ? of foot.

Smoothed purplish o/s, reddish i/s.

Incised: on inner (?) surface, oblique incisions in vertical (?) rows.

Cf. Plassart 1928, 34–5 and figs. 33–4; MacGillivray 1980, 39 nos. 264, 390 and fig. 13.

Spouted bowl

34 (670) Φ ?11/A (PLATE 1)

L. o.o75.

Rim of spout.

Similar to other pieces in this fabric but lacks the 'talc-like' feel.

Smoothed but uneven surfaces i/s, o/s; ?coated o/s.

Body sherds

35 (534) Φ 11/8a (PLATE 1)

L. o.o68.

Body sherd; rather thinner than others of this group; ?orientation.

Smoothed purplish o/s, rougher i/s.

Incised: zones of parallel zigzag.

Cf. Atkinson *et al.* 1904, pl. v. 2 *b*.

36 (506) Φ 11/8a (PLATE 1)

L. o.o98.

Body sherd; trace of ?lug; orientation uncertain.

Smoothed purplish o/s, rougher i/s.

Incised: panels with oblique strokes and herringbone.

Cf. Atkinson *et al.* 1904, pl. v. 15 for separate panels.

37 (505) Φ 11/8a (PLATE 1)

L. o.11.

Body sherd; orientation uncertain.

Smoothed purplish o/s, rougher i/s.

Incised: cc lines (double and single) with zones of oblique strokes between—the large central zone has double lines in an inverted V-shape, the upper and lower apparently oblique strokes (each zone in a different direction).

Cf. Atkinson *et al.* 1904, pl. v. 1, 3.

Joined fragments of a large vessel, similar in fabric and decoration, are on display in the Melos Museum (Catalogue no. 59, from Phylakopi).

Uncatalogued (all DFI): No sherds with shape features; 12 decorated (3 of which are Coarse).

Uncatalogued (all DFI): 1 body sherd (doubtful).

BROWN-SMOOTHED WARE

This ware has not previously been separately identified, although some of it certainly belongs to the 'Coarse Thin' category of Renfrew and Evans (2007, 171–2; see also Vaughan and Williams 2007, 100). The exterior is normally plain and varies in colour from light tan to dark brown. The biscuit is often chocolate brown with only small grits. The larger vases are frequently darker brown and blackened i/s; the smaller sometimes have a pale exterior though it is not clear whether this is due to firing or a slip. It also contains a small sub-category of rather coarser vases with an orange-coloured fabric (cf. 39).

Potmarks are common.

This group must be more or less contemporary with DFI (on grounds of occasional decoration and some similarity in fabric) and Geometric (linear potmarks, cf. Atkinson *et al.* 1904, 178). Most pieces have previously been assigned to one of those two categories. The contexts of the most recent finds are Phase B (EC III).

Bowls/jars

38 (659) Φ ?II/A (FIG. 3)

D. c.0.32; H. 0.074.

Rim; closing.

Smoothed i/s, o/s, blackened o/s; irregular striations i/s on lower part of sherd.

Cf. **95** (SMP decorated).

39 (672) Φ ?II/D (FIG. 3)

D c.0.34; H. 0.07.

Rim; closing.

Hard fired, with thick grey core (some large white grits).

Light brown surfaces.

Cf. Barber 2007, 223 no. 296 and fig. 6. 13 (Coarse).

As regards fabric, **39** seems to bridge the true Brown-Smoothed and a light brown, slightly orangey fabric, quite well smoothed o/s, with white grits, used for similar shapes (especially the barrel jar) and presumably contemporary.

40 (669) Φ ?II/B (FIG. 3)

D. c.0.30; H. 0.039.

Rim; similar in shape to **39** but the rim thickened and the outside edge defined by a shallow groove.

Grey core with some white grits (also showing in the surface).

The surfaces light brown and lightly burnished.

Cf. Barber 2007, 223 no. 301 and fig. 6.13 (Coarse).

41 (671) Φ ?II/D (FIG. 3)

D. c.0.29; H. 0.114.

Rim; tall, slightly everted.

Fabric similar to **40**.

The o/s, and the neck i/s, covered with a wash of a darker brown (the interior lighter).

42 (677) Φ ?II/C (FIG. 3)

D. c.0.31; H. 0.075.

Rim of tall-necked jar or pithos; the rim broad, flat and projecting.

Well fired fabric with thin grey core.

Light brown surfaces, partly blackish o/s, redder, pitted, i/s.

Cf. Barber 2007, 226 no. 337 and fig. 6. 15 (Coarse). ?Early MC.

43 (674) Φ ?II/D (FIG. 3)

D. ?; H. 0.102.

Jug

47 (668) Φ ?II/B (FIG. 4)

D. c.0.04; H. 0.068.

Rim, with part of neck and upper body, of jug, possibly beaked; the lip projecting outwards, with complete, oval-sectioned handle from lip to shoulder (the lower end thrust through the wall of the vessel); a plastic nipple-like stud just below lower handle root level.

Rim.

Similar, in most respects, to **42**, but i/s surface smoother and light brown.

44 (683) Φ ?II/D (FIG. 3)

D. c.0.43; H. 0.053.

Rim of jar, probably barrel-type but without rim ledge; the rim broad and convex.

Light brown fabric throughout, with white grits.

The surfaces originally smoothed but the smoothing survives only in patches.

Cf. Barber 1974, 18 no. -(MM158) and fig. 3, pl. 1 d (MP barrel jar) for rim form, but angle different.

45 -(MM441)) (PLATE 1)

D (base) 0.08; H. 0.285 (as photographed in its present state; could be further restored).

20 sherds (many joining) of barrel jar or conical pithos with narrow base; two complete HVPLs.

Cf. e.g. Atkinson *et al.* 1904, pl. xxxiv. 1; for barrel jars, see **100** etc. (MP).

46 (30 (MM-)) (Akatagrapha) (PLATE 1)

D. (base) 0.109; H 0.05.

Base, with short stem, of jar; previously attached to (an) other sherd(s).

Plain, brownish, uniform, non-gritty fabric.

Well-smoothed, brown-black surfaces (lighter brown underneath), now partly overlaid with a whitish deposit.

'Incised' potmark, on inside of hollow stem: a row of four pricks, cf. Atkinson *et al.* 1904, 179 J8.

For probable shape, cf. Barber 1974, 23 ('Urn-type Pithos', classed with EMP Geometric) no. 258 (MM-), photo. Dawkins and Droop 1911, pl. iv; no. 209 (MM162) and fig. 1, photo. Dawkins and Droop 1911, pl. iv.

In *MM Cat.* '30' is listed with 'Plain burial pithoi contemporary with Geometric' which suits the shape identification suggested. It does not appear in the PCD. The list of find-spots (Barber 1974, 2) records 'J2. 1 E. 96. 19—.08', a level which could be as early as I-ii (PNB 86).

Chocolate brown biscuit.

Mid brown i/s; blacker finish o/s and i/s neck.

The thrust handle and the fabric (cf. **55**) align this piece with EMP beaked jugs (**107**). Studs and other such plastic features are common on MH vessels (Howell 1973, 77).

*Sherds with decoration***48** (630) $\Phi 11/8a$ (PLATE 2)

L. o.063.

Body sherd of ?

Biscuit has black core between orange-brown outer layers.

Smoothed and ?black slipped o/s.

Incised (in unusually broad grooves): part of double lined triangle—both sides and part of base.

Not far from DFI.

Cf. MacGillivray 1980, 18–19 no. 418 and fig. 6;

Atkinson *et al.* 1904, pl. v. 3.**49** (631) $\Phi 11/8a$ (PLATE 2)

L. o.069.

Body sherd of closed vessel.

Fabric similar to **48** but outer layers light brown.

Well-smoothed o/s.

Incised: part of ?triangle with filling of short pointed-oval slashes.

Cf. Atkinson *et al.* 1904, v. 10 for slash-type, but extent of these not clear on **49**.*Sherds with potmarks*For potmarks: Atkinson *et al.* 1904, 177–85; Shepard Bailey 1997; 2007.**52** (58) $\Phi 11/8a$ (FIG. 4)

D. ?c.o.25; H. o.049.

Rim of bowl; the rim square-sectioned.

Thick grey core.

Smoothed surfaces; pale brown o/s, coated red (worn) i/s and on top and inner face of rim.

Incised: ?potmark, below rim o/s—triangular outline, centrally divided. Each half contains a short vertical stroke, the left also punctuation, cf. Atkinson *et al.* 1904, 179 11I.The exterior surface and interior coat recall the DB triangular-rim bowls (**184** etc.), though the form is clearly different.**53** (634) $\Phi 11/8a$ (PLATE 2)

D. (of base) c.o.049; H. o.014.

Complete base; flat.

Grey biscuit.

Light-dark brown o/s, blackened i/s.

Incised: potmark just off centre of base underneath—uncompleted diamond, cf. Atkinson *et al.* 1904, 179 H5–6.**54** (661) $\Phi ?11/B$ (FIG. 4)

D. (base) o.07; H. o.072.

*Almost all base and part of body of large ?bowl.***50** (629) $\Phi 11/8a$ (PLATE 2)

L. o.068.

Body sherd.

Fabric and ?slip like **48** but slip thinner.

Incised: part of triangular, apparently sail-like motif, with central vertical division—one half empty, the other dotted.

Perhaps a potmark like Atkinson *et al.* 1904, 179 111; for examples of alternation of punctuated filling with undecorated areas, cf. Furness 1956, 190 and pl. xx. 2–3 (Kalymnos).**51** (641) $\Phi 11/8a$ (PLATE 2)

L. o.092.

Body sherd of ?

Surface white slipped (possibly EMP).

Incised: fragment of single-line zig zag (or side of large, empty triangle).

Cf. Atkinson *et al.* 1904, 177 (for incised marks on 'Geometric' pottery), also pl. vii. 8, 17 (more compact).*Brown, smoothed o/s; i/s slightly less even.**Impressed: potmark, just above base—two dimples on exterior; on the underside a third, cf. Atkinson et al. 1904, 179 J8.***55** (662) $\Phi ?11/C$ (FIG. 4)

D. (base) o.15; H. o.109.

*Substantial part of base and body of large ?bowl; the edge of the base worn o/s.**Chocolate-brown biscuit.**Smoothed brown i/s, o/s; irregularly blackened o/s.**Impressed: potmark, on exterior just above base—four large dimples.**Cf. Atkinson et al. 1904, 179 J9, though the setting is slightly different.**The fabric is exactly similar to that of 103 which is an EC III B jar (MP), like Barber 1974, 23 no. 209 (MM162) and fig. 1, photo. Dawkins and Droop 1911, pl. iv.***56** (637) $\Phi 11/8a$ (PLATE 2)

D. (of base) c.o.065; H. o.018.

Part of base of open vessel; flat.

Greyish core.

Light brown surfaces.

In matt brownish-red paint: bits of (2) discs, apparently part of a small group, probably circling the centre of the base i/s.

Incised/impressed: potmark, on the underside of the base: three short parallel strokes, with the tips of the strokes resting on the edge of the base, plus a dimple.

This mark is not known. It appears to be a combination of Atkinson *et al.* 1904, 179 A12 and J6. The only mark which combines slash and dimple is J12.

The red spots are similar to those found on EC III B Beakers (Barber 1974, 25 no. 177 (MM328) and fig. 4, photo. Dawkins and Droop 1911, pl. vi).

57 (660) Φ ?11/B (FIG. 4)

D. (base) c.o.07; H. o.o17.

Part base and body of bowl.

Brown, well smoothed o/s.

Incised potmark, immediately above the base: three horizontal strokes, cf. Atkinson *et al.* 1904, 179 A12.

58 (372) Φ 11/5 (FIG. 4)

D. (of base) ??c.o.052; H. o.o13.

Base of open vessel; flat.

Brown o/s, black i/s.

59 (635) Φ 11/8a (PLATE 2)

D. (of base) c.o.07; H. o.o17.

Part of base of ?; flat.

Fabric and similar to **53** but light brown.

Surfaces very smooth, slightly discoloured o/s, blackened i/s.

Incised potmark, at body-foot junction: a series of three chevrons, the apex of each set on the line of the junction, cf. Atkinson *et al.* 1904, 179 F3.

60 (636) Φ 11/8a (PLATE 2)

D. (of base) ?; H. o.o14.

Part of base of open bowl; flat.

Grey core.

Well smoothed surfaces, pale brown i/s, slate-grey o/s.

Incised potmark, at bottom of body wall with apex at edge of base—an arrow shape.

Cf. Atkinson *et al.* 1904, 179 G9, Shepard Bailey 2007, 445 no. 001 (P170) and fig. 10. 15 (EC I–II).

61 (639) Φ 11/8a (PLATE 2)

L. o.o92.

Body sherd from near neck or base of closed vessel.

Fabric light brown throughout.

Incised potmark (or decoration): triple ‘grasses’, cf. Atkinson *et al.* 1904, 179 J14.

62 (640) Φ 11/8a (PLATE 2)

L. o.o57.

Body sherd of closed vessel.

Fabric light brown throughout.

Smoothed o/s.

Incised: ?potmark—part of double line terminating in void, cf. (e.g.) Atkinson *et al.* 1904, 179 A11 and several others.

Probably a potmark since double lines of decorative motifs normally end in a terminal.

63 (638) Φ 11/8a (PLATE 2)

L. o.o69.

Body sherd.

Light brown throughout.

Incised potmark: hourglass form.

No parallel potmark listed in Atkinson *et al.* 1904. For form cf. Atkinson *et al.* 1904, pl. v. 2 a, though on **63** the mark is isolated.

64 (632) Φ 11/8a (PLATE 2)

L. o.o45.

Body sherd from near neck of ?jar.

Grey core with light brown outer layer.

Incised potmark (or decoration): part of triangle or diamond with single slash extant of filling; two droplets immediately above, cf. the incised motif on Atkinson *et al.* 1904, pl. v. 18.

65 (535) Φ 11/8a (PLATE 2)

Part of HVPL, the lug end(s) thrust through but the inner surface smoothed over, probably of barrel jar. Close to EMP.

Traces of white slip, more prominent on decorated side.

Incised: ?potmark, at junction of lug with body—deep pointed oval cuts in herringbone formation. This may be a potmark or a means of disguising/strengthening the join of the lug to the body.

Lindblom (2001) illustrates several examples (e.g. no. 1098, pl. 55) of such handles with incised marks though none seems to be so close to the point of junction with the body of the vessel; recent pieces from Phylakopi (Phase B, EC III) have less complex marks in similar positions (e.g. Renfrew and Evans 2007, 169 P605 and fig. 5. 17); also cf. **167** (MP decorated, with complete HVPL).

Uncatalogued (all Brown-Smoothed): 3 HVPL, 2 body sherds. 1 uncatalogued ‘DFI’ sherd with grooved decoration might be assigned to this category.

Uncatalogued (all Brown-Smoothed): 16, including 2 bases (1 with rilled interior); 2 HVPLs (1 large, complete, 1 small, broken). The orange fabric variant is not represented among the body sherds.

DECORATION

All the decorated material is included in the catalogue. It is insufficient for constructive analysis. Because of the small number of pieces and some uncertainty over fabric identification, it is not possible to assess whether the relationships which can be discerned between EC III A shapes and those of DFI (early EC III B) are also evident in the decorated material—a point of great interest.

Although there is clearly considerable superficial similarity between the simple geometric motifs found on incised pottery and those of the painted Geometric class which succeeded it (especially when painted in the light-on-dark technique), it should not be assumed automatically that this represents a close relationship. There are some distinct differences between the two classes, particularly in respect of large curvilinear elements, which are entirely absent in the incised style. These are matters for further consideration.

Summary of motifs in EC III A, DFI, Brown-Smoothed

Diamond? (with sparse hatching) **18, 22?**; creature? **18**; trellis **22?**; grooves (cc) **19**; grooves (vertical, in pairs) **27**; double loops, dotted **21**; curvilinear star **25**; angular S zone **20**; zigzag (hatched) **20, 29, 30, 35, 51**; herringbone **26, 36**; strokes (vertical and oblique) **32–3, 37** (all Coarse DFI); (oblique) **17, 31, 36**; triangles **28, 48** (double-lined), **49** (slash-filled); sail-like (probably potmark) **50, 52**.

POTMARKS

Summary list of potmarks in EC/DFI: **24, 46, 50, 52–7, 59–63, 65**.

GEOMETRIC POTTERY

Atkinson *et al.* 1904, 96–102; 102–6.

Furumark 1941, 217–20.

Barber 1978, i. 129–50, ii. 8–24.

MacGillivray 1984 (Relative Chronology)

Sherratt 2000, 223–5, 229–30.

Barber 2007, 213.

Renfrew and Evans 2007, 161f.

Pottery with Geometric decoration from the early excavations at Phylakopi was assigned to two different categories: 'Vases with Geometric Designs in Lustrous Paint' (= EMP, see below) and 'Geometric Pottery with Designs in Matt Black' (= SMP, see below). These were distinguished from each other on grounds of fabric, paint, decoration and, to some extent, shapes and motifs employed. A certain amount of overlap between the two classes was however acknowledged (Atkinson *et al.* 1904, 102–3; Furumark 1941, 219). A smaller group, with Geometric patterns in white on a dark ground, was regarded as a subdivision of the 'Lustrous' (EMP) class.

In view of the overlap, and other aspects of similarity discussed below, the two main categories are here presented together. The fabric terminology adopted is that of the publication of the 1974–7 excavations at Phylakopi (Vaughan and Williams 2007, 99, 100), where the Early Matt-painted (EMP) and Soft Matt-painted (SMP) categories correspond to the Lustrous and Matt classes of the 1904 report. For use of the abbreviation 'MP' (Matt-painted), see below.

FABRIC AND PAINT

Recent studies have found difficulty in distinguishing between matt and lustrous paint, which could simply be due to fading in the course of time, but have nonetheless confirmed the existence of two different fabric groups with Geometric designs corresponding closely with those defined in the 1904 report.

Sherds of both classes regularly have a grey core in a reddish 'sandwich'. EMP have no or very small grits, are harder-fired and often 'clinky'. SMP is softer-fired and has larger, often white, grits which stand out

visually against the grey core. Both have white slip but that on EMP is usually thin whereas, on SMP, it is normally thicker and sometimes chalky. EMP decoration is in firm, flat paint which varies in colour from red to black, whereas SMP tends to be thicker, often powdery and brown or black in colour. In respect of paint quality SMP is closer to CW.

Although it is often possible to distinguish the one class clearly from the other on grounds of fabric, there are nonetheless a considerable number of cases where it is difficult to assign sherds with certainty to one or other. In these instances the abbreviation MP is used.

Other fabrics

A number of sherds (cf. Atkinson *et al.* 1904, 167, comment on pl. x. 1–5, 7; also, below, see Beaker (b) 130, 136, etc.) have a distinctive pale-coloured biscuit with pale smoothed surfaces and may be from a source other than Melos.

For the 'Brown-Smoothed' class, which has relationships to Geometric ware, see preceding section.

DISTRIBUTION AND CHRONOLOGY

Geometric pottery (most, if not all, of the first (EMP) class) similar to that from Phylakopi has been found very widely in the Cyclades (Amorgos, Andros, Delos, Kea, Naxos, Paros, Thera) and beyond (Skyros, Tiryns and elsewhere on the Mainland); even supposedly on Menorca.

The chronology of these classes at Phylakopi has been usefully summarized by Furumark and, more recently, Sherratt. The first (EMP) was said to be characteristic of Phylakopi I-ii and iii. The group with white decoration originated in I-ii but mainly belonged to I-iii (Atkinson *et al.* 1904, 93, 96, 250), when it was regarded as a substitute for the Dark-faced incised decorated with incised patterns filled with white. The second (SMP), partly overlapping with the first, was said to continue into II. Some kinds of Geometric pottery apparently persisted to a relatively late stage of the site's history, when the earlier style of what is now termed 'Cycladic White' pottery was in common use (Atkinson *et al.* 1904, 259; Overbeck 1989a, 23). Overbeck's analysis of the Paros excavation suggested that Geometric matt-painted jugs and Cycladic White material were found together—a circumstance which would not be so disconcerting as it seems at first sight if the jugs were SMP and the CW of early Curvilinear type (for the Paros contexts, see also Sherratt 2000, 224 n. 14).

COMMENT

It is important to continue attempting to clarify chronological distinctions within the body of material. Furumark's observation that there was substantial overlap between the two Geometric classes in terms of decoration, in spite of changes in syntax and the introduction of a few new motifs, is now worth reviewing, as is the possibility of linkage between the second (SMP) class and the early Curvilinear style/Cycladic White, on which some comments are offered below (see also Atkinson *et al.* 1904, 103). Another topic of great interest is the nature of any relationship between red-surfaced Geometric pottery with light-on-dark decoration and Middle Cycladic Dark Burnished.

Beaker

(a) Cylindrical

Atkinson *et al.* 1904, 101 Shape 10 (a).

Barber 1974, 25.

Barber 1978, i. 138–9, ii. 15.

Renfrew and Evans 2007, 161 P93, P95, P96 and fig. 5. 15: 8, pl. 19 *d–f* (all EMP); 166, P108 and fig. 5. 15: 7 (Urfirnis related).

Dated Phylakopi examples are from I-iii contexts. Similar vessels have been found elsewhere on Melos (Aspro Khorio, on display in Melos Museum; see Renfrew 1972, 511–12: Melos site no. 6), on Paros (Overbeck 1989a, 13 nos. 93–102 with figs. 42–3 and pl. vii), and on Thera (Sotirakopoulou 1996, 125. 7) in a context

regarded as equivalent to Phylakopi I-ii. One Thera piece came from an apparently MC context (Barber 1978, ii. 15; Marinatos 1968–76, vi. 31 and pl. 67 *b* middle).

66 (243 (MM323)) (PLATE 2)

D. 0.056; H. 0.057 (varies slightly).

Complete; the rim worn in places.

Rough-surfaced white chalky fabric, not standard E/SMP.

The piece is that illustrated in Dawkins and Droop 1911, pl. vi. no. 243. It was not found during earlier study of the 1911 material but the context was identified as 'I-iii, with burial' (Barber 1974, 25).

67 (116 (MM327 in Museum Catalogue, MM323 on vase)) (FIG. 5)

D 0.076; H. 0.072.

Complete vessel; the underneath rather worn.

EMP.

A shallow plastic sickle-shaped curl on one side; otherwise undecorated.

Illustrated in Dawkins and Droop 1911, pl. vi. no. 116 and published, without further illustration, in Barber 1974, 25 with the MM number 327, which was derived from the description in the modern Museum catalogue. On this basis it seems that the piece has been mismarked '323'.

For similar vases with plastic decoration from Thera, see Marthari 1982, 98–9 no. Φ 5 (stud), fig. 5, pl. 11; Sotirakopoulou 1999, 328, 347, 371–2 nos. Δ 228, Ξ 2, Ξ 210, fig. 36 and pl. 103 (curl and studs).

The Phylakopi context is I-iii (Barber 1974, 25).

(*b*) Marked conical shape

Atkinson *et al.* 1904, 101 Shape 10 (*b*).

Barber 1974, 25.

Barber 1978, I. 139, ii. 16.

The form, also found at Aspro Khorio on Melos, is likely to be I-ii/iii. The shape is closely paralleled in MM I A (Pendlebury 1939, pl. xiv. 2, nos. 5, 7 (= BSA 30 (1928–9, 1929–30) pl. xii. a). Some of this type are in the distinctive fine, pale fabric mentioned above.

68 (80) Φ 11/19 (FIG. 5)

D. 0.105; H. 0.031.

Rim (2 fragments joining).

EMP.

In reddish paint: line at lip; running double chevrons with linear infilling.

69 (547) Φ 11/19 (FIG. 5)

D. 0.125; H. 0.031.

Rim.

MP.

Thin white slip o/s; in faded brown paint: band at rim with pendent hatched triangle.

Cf. Atkinson *et al.* 1904, pl. x. 1, but stylistically closer to thicker linear effect of pl. xii. 16 etc.

Uncatalogued (*a-b*): none.

Handled cup

Bell-shaped, everted lip, low carination, the handle round-sectioned.

Atkinson *et al.* 1904, 101 Shape 11; 104 Shape 3.

Barber 1974, 26.

Barber 1978, i. 139, ii. 16; and i. 142, ii. 18–19.

Cf. Sherratt 2000, 233, 13.b.i.60 and fig. 140, pl. 303; Siedentopf 1991, nos. 773, 778 and pl. 117—undated, but stylistically earlier than the 'kantharoi' assigned to Stadt IX.

The same shape is found in both EMP and SMP fabrics. The EMP examples are likely to be I-iii, while some of those in SMP, almost all decorated in the simple linear style of Atkinson *et al.* 1904, pl. xi. 9, were certainly found on II-ii floors. There are pieces from Amorgos and Paros, though their fabric types are unknown to me.

70 (50) Φ 11/12 (FIG. 5)

D. 0.12; H. 0.066.

Rim and large part of profile.

EMP.

Thinnish white slip o/s and thick band on lip i/s.

In brown-black paint: vertical bars dropping from rim, then two zones divided by cc bands, each containing continuous double chevrons.

Cf. Atkinson *et al.* 1904, pl. x. 12.

71 (51) Φ 11/19 (FIG. 5)

D. 0.105; H. 0.074.

Rim and large part of profile, with beginning of low carination.

MP.

Thin white slip o/s and band on lip i/s.

In brown paint, crude: in three zones defined by cc bands, one below the rim, two roughly in the centre of the preserved fragment, one partly surviving at the bottom (i.e. on the low carination). In upper zone, crude double-line zigzag, with filling of oblique lines; in central (narrower) zone, discs; in lower, unfilled double-line zigzag.

Some similarities to Atkinson *et al.* 1904, pl. x. 16, 17.

72 (382) Φ 11/K (FIG. 5)

D. c.o.11; H. 0.05.

Rim.

EMP.

Thin white slip all over o/s and well down (0.039) wall i/s.

In brown paint: two zones of linked discs, separated by thick cc bands (parts of two surviving).

Cf. **106** below (tangents); Barber 2007, 186 no. 4 and fig. 6. 1 (discs, in white; DB).

73 (383) Φ 11/16 (PLATE 2)

D. c.o.11; H. 0.033.

Rim.

EMP.

White slip all over o/s and on lip i/s.

In brownish paint: thick linear elements, perhaps single chevrons with cc central line.

Distantly recalls Atkinson *et al.* 1904, pl. viii. 11, 12.

74 (544) Φ 11/19 (FIG. 5)

D. 0.10; H. 0.035.

Rim; trace of handle root.

EMP, but slightly softer fabric than standard.

Faded white slip o/s and on lip i/s.

In red-brown paint: pairs of double diagonal lines in a panel.

Cf. Atkinson *et al.* 1904, pl. x. 9 (upper zone).

75 (—(MM439)) (FIG. 5)

D 0.10; H 0.053.

Rim.

EMP.

Reddish i/s (black inside to just below the rim), black o/s (?slipped but not burnished—or ?firing).

In matt creamy white paint: zones (one complete and parts of two others) of pendent hatched triangles, separated by thick white cc bands.

Cf. Atkinson *et al.* 1904, pl. x. 1 (dark-on-light convex-sided cup).

76 (542) Φ 11/19 (FIG. 5)

D. c.o.095; H. 0.045.

Rim (same vase as **77**).

SMP; fired dark grey i/s.

Thin white slip o/s.

In brownish paint: horizontal cc band below lip, another near carination; pendent from rim, groups of vertical lines.

Cf. Atkinson *et al.* 1904, pl. xi. 11.

77 (541) Φ 11/19

D. c.o.095; H. 0.047.

Rim (same vase as **76**).

A pencilled number '31' is probably not from the 1911 excavation.

78 (41) Φ 11/12 (FIG. 5)

D. ? 0.11; H. c.o.051.

Rim and part of profile.

SMP.

White slip all-over o/s (thinner, or worn, below carination) and on rim i/s.

In white paint: i/s, two white discs below rim-line; in black paint: o/s, double horizontal bands in angle of lip and body and along carination; blocks of vertical stripes to left and right, from rim to carination.

Cf. **76** (the lower horizontal band thicker on no. **78**).

79 (39) Φ 11/12 (FIG. 5)

D. c.o.13; H. 0.071.

Rim and large part of profile, with complete vertical RSH from rim to just above carination.

SMP.

White slip (fugitive) probably all-over o/s and band below rim i/s.

In black paint: below both handle roots (ringed), in angle of lip and body and along carination—double horizontal bands; to either side of handle—blocks of vertical stripes (5 surviving each side) running from carination to rim.

Cf. Atkinson *et al.* 1904, pl. xi. 9, 11.

80 (78) Φ 11/19 (PLATE 2)

D. 0.09; H. 0.064.

Rim and profile; complete vertical RSH as **79**.

SMP.

Faded white slip all over o/s and thick band on rim i/s.

In dark paint: vertical and horizontal lines, probably as **79** above.

81 (543) Φ 11/19 (FIG. 5)

D. c.0.075; H. 0.056.

Rim, to beginning of carination.

MP.

White slip o/s.

In brown paint: two cc bands below outturn of lip, with another two (the second a trace only) at the carination; between these a zone of triple ?zigzag.

82 (40) Φ 11/12 (FIG. 5)

D. ?; H. 0.058.

Rim and large part of profile, with one complete strap handle from rim to carination. The diameter measurement, which seems exceptionally large (c.0.20) is probably distorted by the handle and may, in fact, be similar to other examples of this shape.

Cup or bowl

Shallower than the preceding and with an unusual wide, flaring lip.

83 (384) Φ 11/17 (FIG. 5)

D. c.0.16; H. 0.043.

Rim; wide, outturned lip.

MP.

Thin white slip all over o/s, i/s; red band on lip i/s.

In brownish paint: on the lip i/s (over the red band) a block (curtailed) of four vertical stripes; o/s, between a single cc line in lip/body angle and a pair of lines bridging the carination, a block of five vertical stripes; overlapping the leftmost stripe a faded red circle fits the height of the zone; some darker patches on the stripes seem to be the result

SMP?; hard-fired, grey biscuit with red outer layers, not far from EMP.

White slip all-over o/s, i/s (faded i/s)

In thick, powdery, matt black paint (definitely SMP-type): horizontal stripes on handle; vertical stripe to either side of handle, horizontal band along carination with, above, two zones of cross-hatching between bands.

Strap handles are hardly known in the Geometric fabrics, though there is an example on a cup of this form (Atkinson *et al.* 1904, 101, 167 and pl. x. 7). For narrow crosshatched band cf. *ibid.* pl. xii. 7 (vertical).

Uncatalogued: 3.

of the deliberate or accidental application of red there too and there is a trace of a red horizontal band below the rim.

The combination of red and dark is odd and the two colours may have been acquired at different times (the external later?).

The combination of groups of vertical bars and discs (without overlapping or differentiation in colour) is found on 'Melian' bowls cf. Atkinson *et al.* 1904, pl. xxxiii. 7.

Uncatalogued: none.

Bowl with inturned or incurving rim

Atkinson *et al.* 1904, 104 Shapes 5, 6; 144.

Barber 1974, 27 Spouted Bowl; 44 Form 4.

Barber 1978, i. 142 Shapes 5, 6, ii. 19, 22.

There is some variety in this group, although most appear to belong to the SMP version of the inturned-rim bowl. They have a reddish-grey biscuit, the larger and much more prominent grits characteristic of many SMP vases, and the paint is thick and powdery.

The original report (Atkinson *et al.* 1904, 144) may be quoted: 'A large class, represented by [pls.] xi. 7 and 8, is a side issue from the series [of 'Flat bowls with spouts'] rather than a link in it. The vases composing it are as a rule much larger than those with which we have been dealing [i.e. the rest of the series]. They are covered with a white coat both inside and out. The rim is vertical or nearly so (in the case of xi.8 the edge is slightly bent outwards) and the handle also is vertical. Lastly the patterns are, comparatively speaking, of great variety'. These comments cover most of the variations evident in the following pieces.

The chronology of this form, which cannot be clearly identified on other sites, is not clear but it is almost certainly found in early City II (Atkinson *et al.* 1904, 259, on pls. x-xiii).

84 (71) Φ 11/19 (PLATE 2)

D. o.115; H. o.046.

Rim, with complete open spout.

SMP.

Probably thin white slip a/o.

In black paint: double cc bands, just below rim and at carination; to either side of spout, blocks of vertical bars—presumably part of series spaced in normal way; the spout/body junction outlined.

Cf. Atkinson *et al.* 1904, pl. xxxiii. 7.**85** (70) Φ 11/8b (PLATE 2)

D. o.115; H. o.034.

Rim, with complete spout.

SMP.

White slip ?a/o, thickest (?only) on rim o/s.

In black paint: cc bands just below rim and at carination; otherwise as **84**.

86 (69) Φ 11/12 (PLATE 2)

D. o.11; H. o.047.

Rim (2 joining, but separate, sherds); root of spout preserved on smaller fragment.

SMP.

Thin white slip o/s.

In black paint: double cc bands just below lip and at carination; between them blocks of vertical bars (the block fully preserved has 6 elements).

Cf. Atkinson *et al.* 1904, pl. xxxiii. 8.**87** (497) Φ 11/?10 (FIG. 6)

D. c.o.016; H. o.034.

Rim, with complete HVPL

SMP; the fabric is difficult to distinguish from LL.

White slip o/s; coated purplish red i/s.

In matt black paint: the edge of the lug painted and its upper junction with the body outlined; stripes on rim, with lines just below and at carination; on the intern, a group of five vertical bars (presumably of series).

This piece may be LC in view of the fabric, relatively small size, coated interior and HVPL which is not standard in the SMP class.

88 (49) Φ 11/8b (FIG. 6)

D. c.o.20; H. o.051.

Rim, with whole spout.

SMP.

White slip, probably a/o but very little survives.

Traces of decoration in dark paint.

89 (545) Φ 11/19 (FIG. 6)

D. ?c.o.15; H. o.043.

Rim; the rim slightly beaded.

MP.

White slip o/s, i/s.

In brownish paint: band in groove of lip o/s, another at carination; between these, at the right, a thick vertical bar, at the left, bit of a chevron (?group) or arc.

Cf. Atkinson *et al.* 1904, pl. xii. 9 (chevrons); *ibid.* viii.9 (arcs).

90 (47) Φ 11/19 (2) and 12 (1) (FIG. 6)

D. o.18; H. o.045.

Rim (3 joining sherds), with part of spout edge.

SMP.

White slip probably a/o.

In brownish paint: double cc bands just below rim and at carination (one to each side); between them, small discs linked by triple tangents; to (?either) side of spout, five vertical stripes.

Cf. (for decoration) **72** above, with references.

Two sherds have pencilled marks '33' that are unlikely to be connected with the 1911 excavation.

91 (68) Φ 11/19 (PLATE 2)

D. c.o.155; H. o.046.

Rim (2 joining sherds), with edge of spout.

SMP.

Thick white slip, probably a/o but thinner below rim o/s.

In matt brownish paint, on rim only: a band just below the lip and another at the carination define a zone containing upright hatched rectangles (two preserved) alternating with solid triangles (one preserved); the two motifs widely spaced.

Cf. Atkinson *et al.* 1904, pl. xi. 7; Nikolakopoulou *et al.* 2008, fig. 32.5 *c* seems somewhat similar.

A pencilled '31' on the inside of the larger sherd is unlikely to be from the 1911 excavation.

92 (72) Φ 11/19 (PLATE 2)

D. ?c.o.18; H. o.045.

Rim.

SMP.

Thin white slip o/s.

In thick matt black paint: bars on top of rim (cf. **94**); parts of double cc bands survive just below rim and at carination; continuous series of rectangles containing double diagonal lines with hatched infilling.

Cf. Atkinson *et al.* 1904, pl. xii. 3. This piece, however, lacks the vertical bars forming the rectangles, for which see pl. xii. 4. Atkinson *et al.* 1904, pl. xii. 2 seems to show bars on top of the rim which, however, are not mentioned as a feature in the text.

93 (385) Φ 11/15 (FIG. 6)

D. ?c.o.21; H. o.o39.

Rim.

MP (less gritty than standard SMP).

Thin white slip ?a/o.

In faded brownish paint: line at rim o/s; linked outline diamonds (?or open net pattern) with discs at junctions.

Cf. Atkinson *et al.* 1904, pl. x. 2 (approximately similar motif).**94** (546) Φ 11/19 (FIG. 6)

D. c.o.145; H. o.o37.

Rim.

MP.

Thin white slip o/s.

In faded black paint: bars on rim (cf. **92**); four cc bands with, in the three intervening zones, groups of four or five vertical lines.Cf. Atkinson *et al.* 1904, pl. xii. 13.**95** (540) Φ 11/18 (FIG. 6)

D. c.o.21; H. o.o42.

Rim.

SMP.

Traces of very thin white slip o/s, i/s.

In faded black paint: band below rim o/s with, below, part of an indistinct motif to the left and (right) a group of four vertical stripes dropping onto a curvilinear scheme partly filled with stripes.

Cf. Atkinson *et al.* 1904, pl. xii. 10.**96** (48) Φ 11/12 (FIG. 6)

D. o.15; H. o.o64.

Rim, with trace of edge of spout.

SMP; the surface fired purplish.

Thick white slip—o/s to just above carination, i/s on lip.

In brownish and white paint: (brownish) cc band just below rim and just above carination; to side of spout, five vertical stripes dimly survive with the fifth curving inward to follow the line of the spout; (white) lines—on lip i/s, on lower part of carination o/s.

97 (74) Φ 11/19 (PLATE 2)

D. ?o.18; H. c.o.o46.

Rim, with complete channel spout.

SMP, with blackish outer layers.

White slip ?a/o, apparently thicker on rim band o/s.

In dark paint: slight traces only survive of band round root of spout.

98 (73) Φ 11/18 (PLATE 2)

D. ?c.o.20; H. o.o68.

Rim, with nearly complete channel spout.

SMP.

White slip o/s, ?only to carination.

In dark paint: traces only survive of bars on top of rim: on inturn, cc bands; on underside of spout, horizontal stripes.

Cf. **97**.

Uncatalogued: 8.

*Flat-rimmed jar*Similar to the barrel jar form (see below) but considerably smaller. Possibly related to Atkinson *et al.* 1904, 103 Shape 1 (amphora, SMP) and pl. xi. 5, 6 (cf. Barber 1978, i. 140–1, ii. 17).**99** (63) Φ 11/19 (FIG. 6)

D. o.o9; H. o.o52.

Rim and upper body.

SMP.

White slip o/s and on top of rim, perhaps also originally on upper part of interior.

Colour of paint uncertain: groups of stripes on rim (2 × 4 preserved); band in angle of rim o/s and

uneven horizontal double lines at maximum diameter; in the zone between, groups of four vertical bars alternating with single small discs.

Cf. (for decoration) Atkinson *et al.* 1904, pls. xii. 7, xxxiii. 7.

Uncatalogued: none.

*Barrel (and ovoid) jar*Atkinson *et al.* 1904, 96–7 Shape 1.

Barber 1974, 18.

Barber 1978, i. 132 Shape I (a) and 134 Shape I (c), ii. 9–10.

Barber 2007, 193 DB Shape 15.

The first finds of this form at Phylakopi are I-ii. At Kea it appears in early MC levels but not thereafter. A Thera piece is illustrated by Nikolakopoulou *et al.* 2008 FIG. 32.5 g (Phase A). There are examples from Paros and parallels from early MH Lerna. Several pieces are known in Red Burnished ware, sometimes with white decoration. It seems to be a pan-Cycladic type.

100 (52) Φ 11/12 (FIG. 6)

D. 0.20; H. 0.073.

Rim.

SMP.

White slip o/s, on top of rim, and band at rim i/s. In black paint: on top of rim, a group of triple lines set tangentially to the curve of the rim; on the exterior, a band at the junction of rim and body, with another just below. The body area appears to have been divided into squares, perhaps as Atkinson *et al.* 1904, pl. vii. 13.

101 (61) Φ 11/8b (FIG. 6)

D. 0.14; H. 0.047.

Rim; small, unpierced, vertical lug in angle of rim o/s.

MP.

Dark slip o/s, on top of rim, and band at rim i/s.

In white paint: stripes on rim; band in angle of rim o/s with another, thinner, below; below this, the tip probably of filled zigzag motif.

Cf. (motif) Atkinson *et al.* 1904, pl. x. 20-1.

102 (—(MM438)) (FIG. 7)

D. 0.175; H. 0.075.

Rim.

EMP.

The inner surface light brown; the outer slipped black (also top of rim and inside to just below mouth), lightly burnished.

5 cc grooves immediately below rim; in white paint: the grooves filled; below, part of horizontal zone of linked ?diamonds, hatched with oblique lines.

Straight-sided jug

Atkinson *et al.* 1904, 105 Shape 8.

Barber 1978, i. 143, ii. 20.

Although said to be 'a favourite form' (Atkinson *et al.* 1904, 105) examples are hard to recognize among the sherd material. Three such vessels were found on a I (presumably I-iii) floor.

105 (46) Φ 11/12 (FIG. 8)

D. (of base) 0.11; H. 0.071.

Part of base and lower body.

SMP.

White slip probably all-over o/s.

In matt brownish paint: crude lattice pattern.

Cf. Atkinson *et al.* 1904, pl. xi. 15.

Cf. Barber 1974, 18 no. 183 (MM157), photo. Dawkins and Droop 1911, pl. iv.

103 (—(MM146)) (FIG. 7; PLATE 4)

D. 0.396; H. 0.45.

Rim and section of upper part; joined from fragments and partly restored. The rim is unperforated.

EMP.

In red-brown paint: double arcades on surface of rim; on body, vertical zones with linked diamonds (criss-cross filling).

Cf. Atkinson *et al.* 1904, pls. x. 13 (cross-hatched diamonds), vii. 2 (similar decorative scheme).

104 (—(MM479)) (FIG. 7)

D. (base) 0.09; H. 0.107.

Base and lower body (12 fragments, 9 joining) of large closed vessel, possibly barrel jar.

EMP(?)

Upper part slipped white o/s.

In reddish paint: cc band 0.54 above base (defining lower edge of white slipped area); above, parts of continuous thick zigzag, interrupted by at least one vertical line.

Cf. Atkinson *et al.* 1904, pl. viii. 5 for a possibly similar scheme.

For similar reddish paint on a white slip cf. **181**.

Uncatalogued: 3 body sherds with HVPLs.

106 (45) Φ 11/19 (FIG. 8)

D. (of base) 0.044; H. 0.067.

Part of base and most of body, perhaps of this form, though the diameter seems small and the decoration elaborate.

MP.

White slip all-over o/s.

In brownish paint in two zones divided by a cc band, another band at the base. In the upper, a row of discs, linked by double tangents: the lower panels contain alternately a cross (corner to corner) and rough cross-hatching.

For decoration see **72, 90**; Atkinson *et al.* 1904, pls. x. 2 (tangents: closer is Buck 1964, Motif 115); xii. 1 (identical scheme but appears to be a rim).

Uncatalogued: none.

Beaked jug

Atkinson *et al.* 1904, 98–100 Shape 8; 103 Shape 2.

Barber 1974, 24–7.

Barber 1978, i. 136–8, 141 Shapes 2 (a) (b), 145, ii. 12–14, 17–18, 21.

According to Atkinson *et al.* 1904, the EMP beaked jug is found in three variants, classified as follows:

(a) Low-bellied with fan-shaped spout and upper end of handle separate from lower end of spout.

(b) Similar to (a) but with handle attached immediately below spout.

(c) (most common) The shape varies from low-bellied to globular—the latter probably later. The spout is pinched to form long narrow channel.

SMP jugs may be:

(a) Small, with narrow, channelled spouts.

(b) Larger, with narrow beak, curving slightly downward at the point or else (c) with short wide spout.

The upper end of the handle is attached to the rim of the spout and not to the neck behind. Both low-bellied and globular shapes are found.

In both classes the lower handle end (and the upper when not attached to the rim) is normally thrust through the wall into the interior of the vase.

When, as often, the beak is incomplete, it is impossible to identify details of the original form but there is clearly considerable variation.

Of EC jugs in general, at present we can say that the leaf-shaped mouth is the earliest form since it appears in EC III A but its lower chronological limit is uncertain; that the long channel spout with a terminal flange, sometimes flaring, found on CW beaked jugs, is an MC, not an EC feature; that the cutaway mouth is a relatively late development, probably found in embryo form in some SMP vessels but more fully developed in LCW/LL jugs decorated in the B&R style.

A detailed study of the development of the Cycladic beaked jug—indeed of all Cycladic jug forms—is long overdue. Various features may have chronological significance: the angle, length and shape of the beak, the use of the thrust handle, the position of the handle.

This is a widespread and popular form. Finds from Andros, Kea, Melos, Naxos, Paros, Thera; also outside the Cyclades (Skyros, Mainland Greece, the Balearic islands?). Contexts are I-ii and I-iii at Phylakopi; early Period IV on Kea. A fragment from Tiryns is early EH III (Weisshaar 1982, 458 and fig. 73. 1; Warren and Hankey 1989, 28).

(Undecorated)

107 (66) Φ 11/18 (PLATE 3)

L. (of spout) 0.065; H. c.0.075.

Spout; channel, narrowing to tip.

EMP.

Black surfaces with white grits showing.

(With dark-on-light decoration)

Published illustrations (e.g. Atkinson *et al.* 1904, pl. ix; Dawkins and Droop 1911, pl. v) mostly show the striped decoration of the spouts but not details of their shape).

108 (79) Φ 11/18 (PLATE 3)

L. 0.079.

Part of spout and RSH.

EMP.

Traces of white slip all over o/s and on lip i/s.

In dark paint: top of rim painted; the beak looped; part of horizontal band (?with pendent wavy line) below on neck.

Impressed: potmark, on top of the handle, just before it attaches to the lip—two oval depressions, cf. Atkinson *et al.* 1904, 179J7.

109 (532) Φ 11/12 (FIG. 8)

L. c.o.039.

Part of spout; narrows markedly to tip.

EMP.

White slip o/s and on rim i/s.

In black-brown paint (faded): bands underneath spout.

110 (529) Φ 11/19 (FIG. 8)

L. c.o.08.

Part spout of large jug; channel narrows towards tip (missing).

EMP.

White slip o/s and, irregularly, along most of channel i/s.

In black-brown paint: bands underneath spout.

111 (530) Φ 11/19 (PLATE 3)

L. o.10.

Part spout; long channel.

EMP.

(With light-on-dark decoration)

Cf. **161**; Nikolakopoulou *et al.* 2008 fig. 32. 3 *b*, one up from bottom left.

114 (520) Φ 11/8b (FIG. 8)

L. c.o.051.

Part spout (back part of rim survives), with handle stump o/s, from just below edge of rim—the bottom end thrust through the wall.

EMP.

Burnished o/s and on rim i/s; the exterior black on one side and reddish-black on the other.

In creamy white paint: on the former side, parts of 2 cc lines; on the latter, parts of 4.

115 (531) Φ 11/18 (FIG. 8)

L. c. 039.

Part spout of small jug, with upper stump of handle; the back part of the rim only survives; the shape of the mouth uncertain.

EMP.

The surfaces fired black.

In white paint: band round neck and ?enclosing handle, extent unclear; band inside mouth.

Round-necked jug (with round or trefoil mouth)

Atkinson *et al.* 1904, 101 Shape 9 (Some are said to have a 'pinched' mouth like pl. iv. 12)

Barber 1974, 27–8 Round-necked jug.

Barber 1978, i. 138, ii. 14–15.

The dated pieces from Phylakopi are I-iii. Other finds are from Amorgos, Paros, and Syros.

White slipped.

In black-brown paint: bands underneath spout, the tip lined.

112 (620) Φ 11/AK (FIG. 8)

H. c.o.156.

Spout, handle and upper body (4 fragments joining); both ends of the handle are thrust through the body; the surface somewhat worn in places.

EMP.

White-slipped o/s and on spout i/s.

In red-brown paint: stripes under spout; a line down the length of the handle; horizontal bands on body—the ends of these do not meet, leaving gaps under the handle.

113 (528) Φ 11/22 (PLATE 3)

L. o.o78.

Handle, with thrust element at one end.

EMP.

White slip.

Otherwise undecorated.

116 (—(MM437)) (PLATE 3)

D. ?; H. c.o.11.

Rim, with neck and part of upper body; the spout is broken; the position of the handle root indicates that the handle sprang from a little below the rim, to the shoulder.

EMP.

Light brown i/s; slipped brown o/s, blacker in places, only slightly lustrous.

In creamy white paint: close set thin lines underneath spout; 3 parallel cc bands ringing neck but curtailed to either side of handle position; 4 more cc bands on shoulder with trace (3 parallel vertical lines) of pendent motif.

Perhaps as Atkinson *et al.* 1904, pl. ix. 10 (dark-on-light).

Uncatalogued: 5.

117 (65) Φ 11/12 (PLATE 3)

D. (of rim) 0.064 (of neck – min.) 0.039; H. 0.063.
Mouth; the rim incomplete.

EMP.

White slip o/s and band at lip i/s.

In dark brown paint: band at lip i/s; o/s, parts of two thick bands, not completely encircling neck.

Cf. (e.g.) Barber 1974, 27 no. 160 (MM81), photo. Dawkins and Droop 1911, pl. vi.

118 (527) Φ 11/8b (FIG. 8)

D. (of rim, est.) 0.052; (of neck opening) 0.022; H. 0.054.

Feeding bottle

Barber 1974, 26 Spouted Jar.

Barber 1978, i. 143–4 Shape 2 (Jar), ii. 20.

A I-iii date is certain for the previously published no. 165 (MM–) (see below). Side-spouted vessels, perhaps with a similar function but rather different in form, are found in CW (cf. 410–11).

119 (64) Φ 11/19 (PLATE 3)

W. (lip to lip) 0.065; H. 0.072.

Mouth; the upper part of the handle/spout missing.

EMP.

White slip o/s and band at lips i/s.

In red-brown paint: edges of lips lined; four bands on body: (1) thick, in angle of neck o/s with droplets hanging from bottom edge; (2) narrow; (3) thick and (4) uncertain. (3) and (4) define a horizontal zone which is filled with triple chevron/zigzag—a droplet projects from the base of each central triangle, alternately from top and bottom bands.

Jars or bowls with some closure at rim

Renfrew *et al.* 2007, 169 P645 and fig. 5. 14: 9; also fig. 5. 18: 4, 5 (P642, P611) (all Phase B—EC III B).

Barber 2007, 202 CW Shape 12 etc. (MC).

Davis and Cherry 2007, 277 P787 and fig. 7. 7 (LC).

These vessels, some of which were probably spouted and/or hole-mouthed, represent varieties of a long-lived form that require better definition, without which it is fruitless to assess distribution. They cannot be closely dated on the basis of the shape alone (see individual entries).

121 (62) Φ 11/8b (FIG. 9)

D. 0.17; H. 0.04.

Rim; flat-topped.

EMP (?).

Dark coat, probably burnished a/o.

In thick, creamy, white paint: to right, part of panel with interior cross-hatch (cf. Atkinson *et al.* 1904,

Fragment of neck and mouth (form uncertain—could be round, trefoil or beaked); tiny bit of rim remains.

MP (?).

Possibly slipped; the surface burnished to a pale red o/s and i/s rim.

In white paint: 3 cc lines.

Cf. Barber 1974, 27 no. 16 (MM136) and fig. 2, photo. Dawkins and Droop 1911, pl. vi. (trefoil mouth, thin white linear banding).

Uncatalogued: none.

Cf. Sherratt 2000, 214, 13.a.17 and fig. 119, pl. 258; also (for shape) Barber 1974, 26 no. 165 (MM–), photo. Dawkins and Droop 1911, pl. vi; (for decoration) Atkinson *et al.* 1904, pl. x. 15, 16.

120 (67) Φ 11/18 (PLATE 3)

D. (at base) 0.019 (of perf.) 0.004; L. 0.05.

Part of side-spout; broken at junction with body; tip broken off.

EMP.

White slip o/s.

In brownish paint, faded: vertical stripes (?4, of which 1 is double) and bands (3) round circumference.

Uncatalogued: none.

pl. xii. 20); to left, part of filled zigzag or other angular motif(s) (cf. *ibid.* pl. x. 21).

The combination of filled vertical zone and attached zigzag is found on an EH III light-on-dark beaked jug from Eutresis (Goldman 1931, 120 and fig. 163–2), though the details and paint are different (also cf. *ibid.* fig. 219, MH dark-on-light).

An unusual piece, conceivably imported.

122 (54) Φ 11/19 (FIG. 9)

D. 0.22; H. 0.048.

Rim.

SMP.

White slip all-over o/s.

In brownish paint: indistinct stripes on part of rim on top; thick band at rim o/s with, below, upper part of hatched 'compass' or zigzag.

Cf. Atkinson *et al.* 1904, pls. xii. 17, xiii. 5.

123 (55) Φ 11/12 (FIG. 9)

D. ?c.o.30; H. 0.059.

Rim.

MP; smoothed surface.

Possibly thin white slip a/o.

In brownish, streaky paint: stripes or blobs on rim; vertical stripe o/s, dividing a band of hatched zigzag; a red blob (possibly = later discolouration) low on sherd i/s.

Cf. Sherratt 2000, 224, 13.b.i.8 and fig. 125, pl. 267 (vertically divided zigzag).

124 (56) Φ 11/19 (FIG. 9)

D. c.o.25; H. 0.041.

Rim.

MP.

White slip a/o, as **122**.

In brownish paint: indistinct stripes (or crosshatch) on part of rim surface; thick band at rim o/s with, below, another thick line dropping diagonally.

Cf. Barber 2007, 202 nos. 106, 111 and fig. 6. 7 (CW)—thick linear decoration on apparently related shapes.

125 (57) Φ 11/18 (FIG. 9)

D. 0.27; H. 0.052.

Rim (3 fragments joining); the top thickened and 'folded'.

SMP.

White slip a/o.

In blackish paint: indistinct blobs on rim; band in angle of rim o/s, part of another below.

Cf. Barber 2007, 191 no. 37 and fig. 6. 22 (DB), for shape.

126 (686) Φ ?11/C (FIG. 9)

D c.o.28; H. 0.06.

Rim.

White slip on top of rim, and all over o/s.

In matt black-brown paint: group of 4 lines pendent from rim (perhaps beginning on rim itself), the unit closed by a horizontal line below; to the right, part of an indeterminate motif including a pair of thick oblique lines and circular element.

The decoration seems most closely related to SMP (cf. Atkinson *et al.* 1904, pl. xii, especially no. 10, for the combination of curvilinear and rectilinear elements) but there is no exact parallel.

127 (685) Φ ?11/C (FIG. 9)

D c.o.30; H 0.051.

Rim.

White slip on top of rim, and all over o/s.

In matt black paint: broad stripes on top of rim; thick band immediately below rim o/s with, pendent from this and overlapping it, part of a thick lattice pattern.

Cf. Atkinson *et al.* 1904, pl. xii. 2.

128 (687) Φ ?11/E (FIG. 9)

D c.o.36; H. 0.076.

Rim.

Thin white slip o/s and ?i/s below rim.

In faded, streaky, brown-black paint: traces of ?long bars on rim; band in groove below, then group(s) of pendent strokes (pointed at top); the zone closed by a cc band, another below.

Cf. **14** (EC III A?); Goldman 1931, 102 fig. 133 no. 4 (EH II); Wilson 1999, 107 no. III-103, pl. 26; MacGillivray 1980, 34 no. 237 and fig. 12 (EC II-III A).

The decoration is perhaps most closely related to SMP (e.g. Atkinson *et al.* 1904, pl. xii. 11) but, as with **126**, there is no exact equivalent.

An unusual shape with confusing parallels.

Uncatalogued: none.

Uncatalogued: 1 rim (undecorated), SMP.

DECORATION

While little can be added to Furumark's brief but perceptive commentary on the decoration of what he termed the 'Native Geometric' style (Furumark 1941, 218-20; with Atkinson *et al.* 1904, especially 102-3, 259), it is nevertheless worthwhile reiterating those points, made by him or in the 1904 report, which are supported by a study of this material. The first is that there is indeed some overlap between the two Geometric classes, a fact which is emphasised by the difficulty, in some cases, of distinguishing between the two fabrics and of the occasional appearance of characteristically SMP paint on EMP fabric. The second is that close

inspection of the material confirms that there are some distinct innovations in the SMP class—a few new motifs and a different approach to decorative syntax. Furumark 1941, 220 saw some limited overlap with the Curvilinear style (primarily, of course, associated with CW fabric), especially in respect of curvilinear and spiral decorative elements which would indicate survival only to the middle stage of Phylakopi II. It is worth noting that the SMP from the recent excavations, where it is regarded as a Phase C (City II) fabric, was limited in quantity although this could be the result of the scrappy nature of the earlier MC deposits (Barber 2007, 182). Nothing in the discussion by Davis and Cherry 2007 of early LC indicates its presence in that phase.

On Kea, a number of Geometric pieces in local fabric have been illustrated from Period IV (earlier MC) where the barrel jar, so typical of the EMP class at Phylakopi, is at first prominent and then dies out. In Period V (later MC), pottery with Geometric decoration seems virtually non-existent.

The precise nature and chronological significance of the differences and interrelationships mentioned above deserve further study, while another aspect for fuller investigation is their relationship to the Mainland sequence. Connections in both shape and decoration are evident from even a cursory inspection of the analysis in Buck 1964, but the extent and importance of these need to be clarified.

NB. Sherds identified as '(pale)' are in the distinctive pale MP fabric mentioned in the introduction to this section.

Trellis/Crosshatch

A common pattern, especially in SMP, when it is usually thick-lined and covers a large area of the vase surface ('trellis').

Cf. Atkinson *et al.* 1904, pls. viii. 13 (EMP), xi. 15 (SMP); also pl. vii. 2, 3, 5 (EMP) as filling of rectangles etc. ('crosshatch').

129 (797) Φ 11/18 (PLATE 3)

SMP (?).

Body sherd: white slip; irregular blackish trellis.

Possibly earlier than EC III.

130 (798) Φ 11/12 (PLATE 3)

MP (pale, but not fine).

Body sherd: broad reddish trellis.

131 (795) Φ 11/19 (PLATE 3)

SMP.

Body sherd: white slip, brown-black trellis.

132 (796) Φ 11/12 (PLATE 3), as **131**.

133 (799) Φ 11/19 (PLATE 3)

MP.

Body sherd: white slip, brown-black trellis pattern made up of small filled diamonds, forming a triangular chequerboard.

Note also in shape catalogue **82** (narrow zones), **105–6**, **121**, **124**?

Uncatalogued: 13, nearly all SMP.

Triangles (crosshatched)

Common.

Cf. Atkinson *et al.* 1904, pl. xii. 16, 19 (SMP).

134 (806) Φ 11/12 (PLATE 3)

EMP.

Body sherd of jug: white slip, thick to maximum diameter, very thin below; black (rather powdery) cc band at maximum diameter; above, triangle and edge of ?another, reversed.

Cf. Barber 1974, 24 no. –(MM70) and fig. 2 (EMP); 26 no. –(MM464) and fig. 4, pl. 2 e; also Atkinson *et al.* 1904, pl. ix. 2 (not reversed).

135 (808) Φ 11/12 (PLATE 3)

EMP.

Body sherd, probably from the same vase as **134**.

Triangles (with vertical linear filling)

136 (412) Φ 11/17 (PLATE 3)

SMP (pale).

Body sherd of large vessel, probably a barrel or ovoid jar, with complete HVPL (two protrusions on

the inner surface, close together, only one of which corresponds to the position of a lug-end, presumably pushed through and partially smoothed over): matt reddish, rather careless, thin

stripes on the lug and the roots ringed; above, vertical lines topped by triangle- (possibly diamond-) shaped appendages with parallel linear filling.

Cf. Atkinson *et al.* 1904, pl. x. 1, which seems closely similar and, although from a small cup shape, is also in light-coloured clay (*ibid.* 167).

137 (800) Φ 11/K (PLATE 3)

MP (pale).

Diamonds (parallel linear hatching)

The thin linear decoration of several of the following pieces seems closest in style to Barber 1974, 18 no. 183 (MM157), photo. Dawkins and Droop 1911, pl. iv, where the scheme also contains similarly hatched diamonds. The linkage on **141** is unusual. For hatched diamonds in dark paint, see Barber 1974, 25 no. 169 (MM110) and fig. 4, photo. Dawkins and Droop 1911, pl. vi.

138 (791) Φ 11/8b (PLATE 3)

EMP.

Body sherd ?from shoulder of jug: red-black surface, ?slip; white linked diamonds.

139 (790) Φ 11/8b (PLATE 3)

SMP.

Body sherd of closed vessel: red slip; white linked diamonds. A pencilled number '2' is not from the 1911 season.

140 (789) Φ 11/8b (PLATE 3)

EMP.

Body sherd of closed vessel: red slip; white linked diamonds.

Diamonds (unfilled)

143 (819) Φ 11/2 (PLATE 5)

EMP.

Body sherd of ? : white slip; black (worn) concentric diamonds (unfilled).

Zigzag (vertically hatched, except 147)

144 (801) Φ 11/14 (PLATE 5)

MP (pale).

Body sherd of ?bowl: reddish zigzag and other linear decoration; drips/dribbles in interior.

145 (809) Φ 11/19 (PLATE 5)

MP.

Body sherd: white slip; reddish broad zigzag.

146 (810) Φ 11/10 (PLATE 5)

MP.

Body sherd: white slip; in blackish paint, parts zigzag, with blob attached to the one apex represented.

Body sherd of small vessel: grey core; reddish paint; part scheme of alternate zones of straight-hatched and filled triangles.

For the hatching cf. Atkinson *et al.* 1904, pl. x. 1, probably a similar vessel.

Note also in shape catalogue (All Triangles): **69** (crosshatch), **75** (oblique strokes), **91** (solid).

141 (794) Φ 11/8b (PLATE 3)

EMP.

Body sherd of closed vessel: red slip; part white diamond with quadruple-line link to another motif.

142 (517) Φ 11/8b (PLATE 3)

SMP (?), possibly DB.

Body sherd of closed vessel: slipped and burnished o/s only; creamy white horizontal line above/below linked diamonds.

Cf. Atkinson *et al.* 1904, pl. x. 26.

White decoration on DB is usually curvilinear; for rectilinear, cf. **305-7**. Similar hatching to this is found in DB elaborate triangles (**313**).

Cf. Atkinson *et al.* 1904, pl. x. 26; Zervos 1957, pl. 128 (white).

Seems more common in EMP, cf. Atkinson *et al.* 1904, pl. x. 21, 27 (both white).

Cf. Atkinson *et al.* 1904, pl. vii. 5 (slighter blob and zigzag, unhatched).

147 (522) Φ 11/8b (PLATE 5)

EMP.

Body sherd from near neck of ?jug: slipped?, burnished o/s to black/red; creamy white cc lines (4) with, below, bit of zone with filling of double or triple-line zigzag (unhatched).

Cf. Atkinson *et al.* 1904, pl. x. 20.

Note also in shape catalogue **101**, **121**, **123**.

*Other patterns (cross-hatched)***148** (788) Φ 11/12 (PLATE 5)

SMP.

Body sherd of large closed vessel: ?thin white slip; brown-black, thickly outlined, rectilinear elements (?triangles or 'butterflies').

Cf. Atkinson *et al.* 1904, pl. xii. 15 (bowl).

Perhaps imported.

149 (805) Φ 11/19 (PLATE 5)

EMP.

Body sherd from shoulder/neck of jug: powdery black cc bands, pendent double oblique lines

(cross-hatched)—perhaps part of a series as Atkinson *et al.* 1904, pl. xii. 3.

150 (519) Φ 11/8a (PLATE 5)

EMP.

Body sherd of ?: fired blackish o/s, dark buff i/s; creamy white cc band, zone of thin trellis/crosshatch.

Cf. **22** (DFI); Atkinson *et al.* 1904, pl. x. 21; also Goldman 1931, 117 figs. 155–6 (EH III) for a somewhat similar style.

*Schemes including circular elements (circles and discs)***151** (619) Φ 11/K (PLATE 5)

SMP (?or Brown-Smoothed).

Body sherd of ?: in black, parts of (a) a large ?triangular zone filled with crosshatch and (b) a circular motif with thin double lines attached; traces of a second set of double lines.

The circular motif with appendages recalls Barber 1974, 234 no. –(MM443) and fig. 3, pl. 1 *b*; for combination of circles and rectilinear elements cf. Atkinson *et al.* 1904, pl. x. 18 and Goldman 1931, 150, fig. 206, no. 4. Closest is Siedentopf 1991, 63 no. 170 and pl. 39 (Stadt VII-VIII), which also has the star motif characteristic of Melian SMP.

Conceivably imported.

152 (803) Φ 11/12 (PLATE 5)

EMP.

Body sherd from shoulder of closed vessel: white slip; 2 reddish cc bands; below, crosshatched panel with, to right, ?edge of circle.

Cf. Atkinson *et al.* 1904, pl. vii. 3 (no circle).

153 (807) Φ 11/12 (PLATE 5)

EMP.

Body sherd of ?jug: white slip; in black paint, parts of ?circles linked by groups of short straight lines.

Cf. **151** above.

154 (793) Φ 11/? (PLATE 5)

EMP (?).

Body sherd of closed vessel: black slip, part of (white) circle with parallel linear filling, part of double-lined tangent.

*Line-groups***157** (818) Φ 11/12 (PLATE 5)

MP.

Body sherd of rounded vessel, probably a spouted bowl: thin white slip; black cc bands with, in each

Cf. Atkinson *et al.* 1904, pl. x. 18.

Similar thick white linear decoration is sometimes found on DB (cf. **313**).

155 (518) Φ 11/8b (PLATE 5)

EMP.

Body sherd from shoulder of jar or jug: the surface seems lightly burnished, varying in colour between dark red and blackish; in creamy white paint, two cc lines with, below, parts of panels with disc, cross-hatch and ?.

Cf. **156**, and note compositional similarity with Atkinson *et al.* 1904, pl. xii. 7, 20 (SMP).

156 (85) Φ 11/18 (PLATE 5)

EMP.

Body sherd from shoulder/neck of ?jar (though the interior is smooth and apparently slipped): dark surfaces, thin white slip (badly faded); in blackish paint, line at junction with body; a disc in the field below, then remains of ?a double-outlined panel with double oblique crosspiece (the disc appears to be linked to the elements above and below by triple lines).

The combination of discs and linear geometric patterns seems mainly to have occurred on SMP vases, cf. Atkinson *et al.* 1904, pl. xii. 7, 16 (but see **155**).

Note also in shape catalogue **95**.

zone, 'metope' design—blank panels alternating with groups of (5) upright bars.

Cf. Atkinson *et al.* 1904, pl. xii. 13 (SMP, close).

158 (820) Φ 11/19 (PLATE 5)

EMP.

Body sherd: white slip; black, thick cc bands with spaced pairs of oblique lines (same thickness) slanting in alternate directions, by zone.

Cf. Atkinson *et al.* 1904, pl. x. 10 for similar scheme.

159 (523) Φ 11/8b (PLATE 5)

EMP.

Body sherd from near neck of small closed vessel: slipped?/burnished o/s orange-red; in creamy white paint, cc lines (3) with irregular vertical lines pendent from lowest.

For this system (long line-groups pendent from neck/shoulder bands), particularly common on jugs, cf. Atkinson *et al.* 1904, pl. ix. 10; Zervos 1957, pl. 129 (white).

Birds (bodies cross-hatched)

Cf. Atkinson *et al.* 1904, pl. xi. 2 (= Zervos 1957, pl. 168), xii.24, 26, 27; Dawkins and Droop 1911, pl. xiv. 36; Sherratt 2000, 231–2, 13.b.i.46–50 and pls. 296–7.

In cases where the fabric appears EMP, the slip and paint are more characteristic of the SMP category.

162 (410) Φ 11/2 (PLATE 5)

EMP.

Body sherd of carinated vessel: thick white slip o/s; in matt blackish paint, the lower part of a bird (the body presumably cross-hatched), including all of its two legs, standing on a cc band.

163 (88) Φ 11/19 (PLATE 5)

EMP.

Body sherd of closed vessel: thick white slip o/s; in black-brown paint, tail, rear part of body and two legs of bird standing on cc band; trace of another motif above left.

164 (77) Φ 11/12 (PLATE 5)

SMP.

Body sherd of ? : white slip all over o/s; white also i/s but this perhaps from soil action: in thick, powdery, matt black paint, part of the body and legs of a bird, standing on part of a cc band.

165 (76) Φ 11/12 (PLATE 5)

SMP.

Body sherd of ?jug/amphora (perhaps as Atkinson *et al.* 1904, pl. xi. 2 or 5): white slip all over o/s; in

*Creatures?***169** (804) Φ 11/19 (PLATE 6)

EMP.

Body sherd of small closed vessel: thin white slip; brown-black abstracted ?‘fish’ motif and trace of another element.

160 (792) Φ 11/8b (PLATE 5)

SMP (?).

Heavy body sherd of ?jug: black slip, thick white lines and pendent strokes (?oblique).

161 (521) Φ 11/8b (PLATE 5)

EMP.

Part ?spout of beaked jug: the exterior slipped/burnished uneven brown-black; creamy white parallel lines of uneven thickness.

Cf. Nikolakopoulou *et al.*, 2008 fig. 32.3.b: 1 up from bottom left.

Note also in shape catalogue (Line groups and Bars, including on rims): **70**, **76/7**, **78–80**, **82–4**, **86–7**, **89–90**, **92**, **94–6**, **98–101**, **112**, **116**, **120**.

thick, powdery, matt black paint, part of the body and tail of a ?bird (no legs evident; long tail).

166 (533) Φ 11/17 (PLATE 5)

MP.

Body sherd of closed vessel: hard-fired, small white grits, the interior orange; thick white slip o/s; in faded dark matt paint, part of body and legs of bird, with tail (complete).

167 (75) Φ 11/12 (PLATE 5)

SMP.

Body sherd of jar (?ovoid or barrel), with complete HVPL: thick white slip all over o/s; in thick, powdery, matt black paint, the lug outlined and a cc(?) band below; standing on the upper outline of the lug, an oval-bodied bird, with both legs, the tail and part of the neck.

168 (86) Φ 11/12 (PLATE 5)EMP (as **166**).

Body sherd of closed vessel: white slip o/s; blackish curvilinear elements including part of bird, with white centre and black outline, head and beak.

Cf. Atkinson *et al.* 1904, 120, fig. 92 (Therans swallow).

Cf. Atkinson *et al.* 1904, pl. ix. 11 (not identical).

Pencilled numbers ‘31’ and ‘33’ are not from the 1911 excavation.

170 (814) Φ 11/19 (PLATE 6)

MP.

Body sherds (2 joining) of large vessel: the surface worn; white slip; in black paint, part of triangle, as **171**.

The filling, of parallel lines rather than the crosshatch used for birds, looks related to that of Atkinson *et al.* 1904, pl. vii. 4. The spiral element might be part of a bird's head as on Dawkins and Droop 1911, pl. xiv. no. 36.

Pencilled numbers '31' and '33' are not from the 1911 season.

171 (813) Φ 11/12 (PLATE 6)

MP.

Spirals

True spirals are very uncommon in EMP/SMP, where (cf. Atkinson *et al.* 1904, pl. vii. 1) they are regularly formed out of linked groups of concentric circles. For other spiraliform elements cf. *ibid.* pl. xii. 29, 30.

173 (538) Φ 11/19 (PLATE 6).

MP.

Body sherd of large closed vessel, perhaps a barrel jar: thin white slip; in black paint, large thin-lined spiral, apparently part of linked series. Possibly same vase as **170**, **171**.

Cf. Atkinson *et al.* 1904, pl. vii. 1.

174 (812) Φ 11/19 (PLATE 6)

SMP.

Body sherd: white slip; in black paint (very faint), part of spiral; also thin, snaky, curvilinear element. The latter possibly as Atkinson *et al.* 1904, pl. xii. 22.

175 (817) Φ 11/19 (PLATE 6).

?MP (pale).

Other motifs

178 (87) Φ 11/19 (PLATE 6)

EMP (orange fabric).

Body sherd of closed vessel: white slip o/s; in blackish paint, traces of cc bands, an isolated single-line zigzag (cf. Atkinson *et al.* 1904, pls. xii. 6, xiii. 1) and other elements.

A pencilled '31' is not from the 1911 excavation.

179 (815) Φ 11/19 (PLATE 6)

SMP (?).

Heavy body sherd: white slip; in faded black paint, traces of curvilinear motifs (?linked sub-spirals, something like Atkinson *et al.* 1904, pl. xiii. 12).

180 (537*a-c*) Φ 11/12 (*a+c*),/19 (*b*) (PLATE 6)

SMP (?).

Body sherds (3) (*a+b* joining) of very large vessel: thinnish white slip all over o/s; in black paint,

Body sherd of large vessel: slip/paint/ decoration as **170**, though **171** includes the apex of the triangle. Perhaps both part of same vase.

Cf. **173**.

172 (811) Φ 11/12 (PLATE 6)

MP.

Body sherd of large vessel: white slip; in black paint, part of ?bird's body with ?trace of leg, bit of another motif.

A pencilled number '33' is not from the 1911 season.

Body sherd of small vessel: white slip; black thin-lined (true) spiral.

176 (816) Φ 11/19 (PLATE 6)

MP.

Heavy body sherd of ?bowl: white slip (also i/s); faded black multi concentric circles.

177 (627) Φ 11/AK (FIG. 9)

SMP (on paint quality), but possibly LL.

Body sherd of jar or jug, with trace of a feature (handle root or spout): white slipped o/s; in matt black paint, the feature ringed; 2 thickish bands at neck with, attached to the lowest by sharply curving lines, pendent spirals.

Uncatalogued: 11.

isolated 'bunch of grapes' motif (twice represented, on *a-b* and *c*).

Parallels are elusive for this interesting motif, which looks characteristic of the SMP style. Closest is FM 42. 21 (Joining Semicircles (Triangular Patch)) but the date (LH III B-C1) is discouraging.

181 (539) Φ 11/18 (PLATE 6)

SMP (?) (orange fabric).

Body sherd of large closed vessel: thick white slip o/s; red-brown part of large thick circle, with smaller ring in its centre.

Cf. Atkinson *et al.* 1904, pl. vii. 12; Sherratt 2000, 226, 13.*b.i.20* and pl. 277; also **104** for reddish paint on white slip.

Note also in shape catalogue **106** (Cross).

182 (-(MM422)) (PLATE 6)

Six sherds (4 + 2 joining; the two sets not from the same vase; the pair with indistinct white decoration) of body of amphora or jug: unusual uniform reddish biscuit with slightly greyer core and fine white grits; reddish surfaces, smoothed o/s; white ?cc band, large, thick, pendent spiral, vertical bars.

Cf. Atkinson *et al.* 1904, pl. xiii. 12, 15, 19; Barber 1974, 27 no. -(MM423), pl. 2 f; Barber 1978, i. 145–6 Shapes (6) (7), ii. 21; Sherratt 2000, 235–6, 13.b.i. 70–74 and pls. 310–14; Overbeck 1989b, 43–4 Q18 a, b (beaked jug) and pl. 42 (Period IVa), also others related (e.g. p. 97 AQ–11 to 14 and pl. 58).

The sherds comprising **182** belong to a distinctive group (cf. Sherratt 2000, 235, second class) with simple, thick, linear decoration.

The following motifs are represented in the shape catalogue but not certainly or in the same form among the decorated sherds: rectangles (hatched)

91; diamonds (open) **93**, (oblique hatching) **102**, (crosshatched) **103**; zigzag (solid) **104**; compass (or zigzag) (hatched) **122**; droplets **119**; panel **100**; diagonal lines **74** (double), **92** (double, hatched); chevrons (single) **73**; (running, double/?zigzag) **68**, **71** (both unhatched), **70** (hatched vertically), **71** (hatched horizontally), **81**; (triple) **119**; discs **71–2** (linked), **78** (inside), **83**, **90** (linked), **93**, **99**, **106** (linked), **123?** **125?**

Uncatalogued: In addition to the above (i.e. the pieces recorded under ‘Trellis/Crosshatch’, ‘Spiral’, and ‘Creatures’) there are c.210 uncatalogued EMP (c.45%) and SMP (c.50%) sherds with traces of decoration. Most of the designs are not identifiable and there are not more than one or two examples of any of the other motifs listed above. 22 are light-on-dark and 8 are in the pale fabric.

Uncatalogued: 2 SMP body sherds, both with linear decoration.

POTMARK

The only potmark listed in this section is **108**.

DARK BURNISHED (DB) POTTERY

One of the two major pottery classes of the earlier Middle Cycladic period, Dark Burnished has general antecedents in the heavier burnished ware of the EC tradition, as well as the finer pottery of EC III A and earlier EC III B. Burnish closer to the classic MC-type seems to appear on a limited range of shapes (Melian bowl, triangular-rim bowl) first in later EC III B (I–iii).

FABRIC

Chiefly that of MC Dark Burnished as described in Vaughan and Williams 2007 (100–1) but including also a few Dark Washed pieces (*ibid.* 102), as indicated in the catalogue. Some of the latter have a very pale fine buff-whitish biscuit, not unlike CW, and may be considerably later in date and/or from a different source.

A variety of DB, found in a small but not insignificant number of sherds with black surfaces, has an even, greyish, slightly pumicey biscuit and seems likely to be imported from Thera.⁴

DISTRIBUTION AND CHRONOLOGY

DB pottery is found throughout the islands. Some differential features have been identified, the most significant being the localized use of slip and burnish to produce highly lustrous surfaces. Others should become evident in future study.

Evidence from both Kea (Overbeck 1989b, 9–10; Davis 1986, 85) and Phylakopi indicates that the class declined in importance after the earlier MC period and some shapes (e.g. the barrel jar) and aspects of surface treatment (high burnish) seem confined to that phase. The linkage between DB and the earlier Curvilinear style (CW), in respect of some decorative elements, fits in with this assessment. While preliminary

⁴ This conclusion, which needs to be scientifically tested, was reached after discussion with Dr

Nikolakopoulou, to whom I am most grateful for her opinion.

notices of recent material from Akrotiri appear to blur the chronological distinction between DB of MC type, and the 'Geometric' (EMP/?SMP) classes, the evidence from Phylakopi (from both earlier and recent excavations) suggests that EMP, at least, and DB are essentially successive.

COMMENT

A closer definition of the characteristics of MC burnished and of the differences between it and other varieties of burnished ware is desirable. Further study of relationships between Mainland and Cycladic burnished pottery would be welcome.

In view of the previous neglect of DB pottery, a fuller list of references is given than for other classes:

(i) Cycladic finds, parallels, commentary

Atkinson *et al.* 1904, 154.

Barber 1974, 28–30.

Barber 1978, i. 150–66, 166–7, ii. 24–33.

Dawkins and Droop 1911, 19–21.

Overbeck 1989a.

Scholes 1956, 16–18.

Sherratt 2000, 236–41.

Seddon 1993.

(ii) Select recent finds from the Cyclades

Overbeck 1984 (Kea).

Barber and Hadjianastasiou 1989, 86–91 (Naxos).

Davis 1986, 4–5, 85 and catalogue (Kea).

Overbeck 1989b, 9–10 and catalogue (Kea).

Barber 2007, 186–96 (Phylakopi).

Akrotiri: Burnished pottery was apparently common in recently excavated EC III–MC deposits (Nikolakopoulou *et al.* 2008) but only full publication will allow its character and chronological relationships to be properly assessed.

(iii) Mainland parallels

Goldman 1931, 125–35.

Immerwahr 1971, 58–60 and catalogue.

Zerner 1985, *passim*; 1988, 1 and figs. 1–3.

(iv) Minyan relationships

The DB class includes several forms and fabric varieties which are closely related to those of Minyan (Grey and other). For discussion of Minyan at Phylakopi (including the difficulties of distinguishing between locally produced and imported Minyan and of precisely identifying shapes), see Dickinson 2007. For other material from the site and the Cyclades in general, see Barber 1978, i. 160–6 (with a commentary on occurrences and chronological indicators of Grey Minyan in the Cyclades). See also below, Grey Minyan.

NB. Except where stated, colour comments in the following entries refer to the surface slip/burnish.

Bowl or cup

An unusual shape, perhaps similar to a form from Lerna V (MH II; Zerner 1988, 1 and fig. 2 no. 15, Red slipped and burnished) or matt-painted vessels from Aigina, e.g. Siedentopf 1991, 90 no. 542 and pl. 93, some of which (*viz.* nos. 569–73 and pl. 95) have decoration like that of our 183.

183 (313) Φ 11/8b (FIG. 10)

D. c.o.18; H. o.o37.

Rim, with everted lip.

Red-brown.

Band of white slip below rim o/s.

Uncatalogued: none.

In matt brown-black paint, on slip band: lines in concavity of lip and at carination with, between them, horizontal chevrons.

Triangular rim bowl

Burnished all over i/s, o/s on slope of rim only. The finish is considerably less glossy than that of much of the Melian DB class. The fabric is usually close to Brown-Smoothed.

Barber 1974, 28 (bowl).

Barber 1978, i. 159 Shape 12, ii. 29.

Barber 2007, 189 DB Shape 7.

Renfrew and Evans 2007, 172 P635, P636 and fig. 5.18: 6, 7 (Coarse Thin: Phase B/EC III B).

Finds are mainly from Phylakopi (I-iii), with possibly one from Paros. The contexts of these vessels accord with those of the Melian bowls to suggest that the formative stage of MC-type Dark Burnished ware lies in I-iii/EC III B.

184 (363) Φ 11/5 (FIG. 10)

D. ?c.o.34; H. o.o4.

Rim; lower surface of rim worn o/s.

Slip is red-brown; the non-slipped exterior is blackish (?fired or coated).

185 (666) Φ ?11/D (FIG. 10)

D. c.o.37; H. o.o82.

Large rim fragment.

Top of rim and interior surface coated red, slightly streaky—hints of burnish on top of the rim; the interior now matt (perhaps always, or from use of vessel).

186 (665) Φ ?11/D (FIG. 10)

D. c.o.37; H. c.o.o84.

Rim.

DB?

Greyish coated all over o/s.

Cc band at rim i/s; black ?stripe pendent from this—broad, but width uncertain as located at break; possible traces (not shown on drawing) of crude (curvi)linear decoration over coat o/s.

Inturned-rim bowls

(a) Burnished all over i/s; o/s only on rim; the incurve is usually rounded but sometimes sharper.

Barber 1974, 42–3 Type 2.

Barber 1978, i. 156–7 Shape 9 (b), ii. 27–8.

Barber 2007, 188 DB Shape 4 (b).

Sherratt 2000, 271–2 and 273, 13.b.i.286, 287 with figs. 184–5, pls. 411–12.

Sotirakopoulou 1999, 307 KA 582 and pls. 45–50 etc.

From Phylakopi (I-iii/II early), Thera (probably EC III B), Paros. The apparent absence of this early variety from Kea (some pieces, which in fact lack both the more rounded incurve and the exterior rim band, were wrongly assigned in Barber 1974 (44)) may be significant.

187 (664) Φ ?11/B (FIG. 10)

D. c.o.37; H. o.o83.

Rim.

Top of rim coated black, no trace on interior but possibly also coated originally; the exterior pale, smoothed, ?slipped.

188 (663) Φ ?11/C (FIG. 10)

D. c.o.37; H. c.o.o78.

Rim; similar to **187** but exterior rim edge more rounded.

DB? but no trace of slip or burnish.

The surfaces well smoothed, more so i/s.

189 (371) Φ 11/23 (FIG. 10)

D. (of base) c.o.14; H. o.o16.

Base, probably of this shape; flat.

Red; smoothed brown o/s, like the paler pieces in Brown-Smoothed ware.

Uncatalogued: none.

190 (32) Φ 11/23 (FIG. 10)

D. ? 0.20; H. 0.038.

Rim.

Brown.

191 (33) Φ 11/23 (FIG. 10)

D. ? 0.23; H. 0.051.

Rim.

Red.

192 (308) Φ 11/5 (FIG. 10)

D. c.0.16; H. 0.04.

Rim.

Red-brown, but blacker on i/s of rim.

The incurve is sharper than normal, but cf. Barber 1974, 42 no. 6 (MM334) and fig. 9, pl. 7 *a*.

Uncatalogued: 1.

Uncatalogued: 1 (?).

(*b*) The classic 'Melian bowl' (shallow; HVPL and channel spout; burnished a/o; white slip with dark painted decoration o/s on the inturn only).

Barber 1974, 44 Type 3.

Barber 1978, i. 157–8, ii. 28–9.

Barber 2007, 187–8 DB Shape 4 (*a*).

Sherratt 2000, 271–2 and catalogue entries 13.b.i.288 etc.

The fabric of some pieces is closer to SMP or EMP than DB but they are included here on the basis of their surface treatment.

At Phylakopi the contexts are mainly I-iii; on Kea the few fragments of this form are from earlier levels of Period IV (Overbeck 1989b, 166 CI–13 and pl. 81). It appears to be barely represented at Akrotiri (unless Nikolakopoulou *et al.* 2008 fig. 32.5 *c*) and Paros (Overbeck 1989a, 16 no. 136 and fig. 10 top—?no slip on rim).

Note

As Sherratt (2000, 271) has rightly observed, these bowls in particular represent a combination of features of the Geometric (EMP/SMP) and Dark Burnished classes. I take this to indicate that a version of the Middle Cycladic burnishing technique was introduced on a very limited range of shapes at the end of EC III B, sometimes, as here, in combination with Geometric decoration, before it was refined and widely adopted as one of the two major classes of the MC period. It must surely be significant that, although there are a number of incurved-rim bowls from Phase B of the recent excavations, no examples of either (*a*) or (*b*) above are recorded.

193 (310) Φ 11/8b (FIG. 10)

D. c.0.17; H. 0.025.

Rim, with complete channel spout.

Red.

In dark paint: traces of decoration (not shown on drawing), including horizontal stripes on underside of spout.

194 (311) Φ 11/8b (FIG. 10)

D. c.0.17; H. 0.035.

Rim, with complete HVPL.

Red.

In dark paint: traces of decoration (not shown on drawing).

195 (312) Φ 11/8b (FIG. 10)

D. c.0.19; H. 0.034.

Rim, with complete HVPL.

Red; not certainly slipped and burnished o/s.

White slip on rim o/s and, apparently though more thinly, on smoothed lower body.

In brown-black paint: between lines just below lip and at carination, blocks of vertical stripes; the lug/body junction painted.

The white slip on the body, if correctly detected, is unusual.

196 (19) Φ 11/1 (FIG. 10)

D. c.0.18; H. 0.049.

Rim, with trace of the side of a spout.

Red.

In black paint: traces of lines and dots.

Probably as Atkinson *et al.* 1904, pl. xxxiii. 7.

197 (309) Φ 11/12 (FIG. 10)

D. c.0.19; H. 0.047.

Rim.

Red; not certainly slipped and burnished o/s.

White slip to just below carination.

In dark paint: ?row of chevrons between two black lines (just below lip and on carination).

198 (31) Φ 11/5 and 23 (FIG. 10)

D. ? 0.16; H. 0.055.

Rim (2 fragments joining).

Close to SMP; white grits prominent in surface and breaks.

Dull purplish ?slip; ?burnished.

In black paint: o/s, on intum, two cc lines, perhaps also other linear elements (bars?); in white: o/s, two lines, one on and one just below the carination, merging; possibly also curvilinear elements on body below; i/s, band below lip and another in angle of carination; below, perhaps circling the centre of the base, ?part of a row of thick crescents converging either on discs (cf. Atkinson *et al.* 1904, pl. xv. 8) or on a circular element, itself filled with small circles (cf. **270**).

This is an unusual piece, not standard for Melian bowls. The interior decoration is very hard to read but the syntax may be similar to that of Atkinson *et al.* 1904, pl. xv. 8 (CW shallow cup).

199 (? (MM335)) (PLATE 7)

D. 0.142; H. 0.049.

Most (3 fragments joining) of vessel, with a tiny piece of the side of the spout.

DB/SMP.

Brown, well smoothed i/s (?burnished), burnished o/s.

In matt black paint: widely separated groups of 4 vertical bars, between cc bands.

Cf. Barber 1974, 44 Form 3, esp. no. 156 (MM51) and pl. 7 *b*, although **199** has a rather more upright rim.

There is an original excavation number, now illegible, also perhaps a trench code.

200 (-(MM41)) (PLATE 7)

D. 0.142; H. 0.069.

Most (5 fragments joining) of bowl, including HVPL and trace of beginning of spout. Four of the fragments (including the lug) are very worn and the surface has disintegrated.

Red-brown, smoothed and ?burnished, especially o/s.

In matt black paint: discs.

Cf. Atkinson *et al.* 1904, pl. xxxiii. 13.

Rather deeper than the normal Melian bowl and probably later.

Slight traces of an old excavation number, also possibly a context indicator, which have been erased.

201 (231 (MM54)) (PLATE 7)

D. 0.143; H. 0.058.

Almost complete vessel, with channel spout and HVPL; two sections of the rim missing.

Orangeish fabric, closer to EMP/SMP.

Red surfaces.

Traces of white slip and indeterminate decoration in dark paint on in-slope of rim.

Impressed: potmark, on underneath of base—three dimples in triangular setting, cf. Atkinson *et al.* 1904, 179 J8.

The context is II-i (Barber 1974 12-13; H. 4. 21. 96. 83-rock).

202 (?97 (MM49)) (PLATE 7)

D. 0.148; H. 0.048.

Most of vessel (joined from 4 fragments), with channel spout and narrow HVPL; a small part of the base missing.

Red.

In matt black paint: between two lines (at lip and angle of intum), groups of vertical bars; the spout outlined and the top of its rim and outer edge painted, with stripes underneath.

The old number is probably 9 + a second digit, as there seems to be a line underneath the first numeral, indicating '9' rather than '6'. The '1' has been inked later. The most likely candidates are 97 (or possibly 98) since these belong to the category of 'Melian Bowls B (Red inside and outside except on the rim)'. The list of find-spots in PNB gives the context for 97 as 'H. 4. 28. 97. 62-rock', a level of II-ii date (PNB 27).

203 (58 (MM-)) (PLATE 7)

D. 0.139; H. 0.054.

Almost complete vessel, with channel spout and HVPL.

Fabric close to SMP.

Surface black all over (?firing); not clear if burnished.

In dark paint: groups of 6 vertical bars between thin cc bands; the lug and spout outlined; to right of spout, where there is room, short stripes, also above the top cc band on the very edge of the rim.

Impressed: potmark, on underneath of base—three dimples in triangular setting, cf. Atkinson *et al.* 1904, 179 J8.

The number on this vase is a puzzle. It is not listed among the Melian bowls in *MM Cat* and is not in PCD. The style of the '58' looks similar to that of the '[231 (MM)54]' above, which is a modern Melos Museum number, though '58' is described as a

'prochous' in the Catalogue. The fact that the level to which no. 58 is assigned in the list of find-spots (H. 4. 2. 100.36–17, see PNB 11) may be dated to LC II also suggests that the association is unreliable.

(c) Intermediate form

It is not clear whether the following pieces should be classed with 'Melian' or 'Cycladic' bowls.

204 (18) Φ 11/1 (FIG. 11)

D. c.o.35?; H. o.o8.

Rim (2 fragments joining) and large part of profile of large bowl.

Red; slipped and burnished o/s only.

In white paint: band at rim o/s; band across angle; indeterminate design below carination of broad white bands, perhaps resembling Barber 2007 no. 102 and fig. 6. 6 (CW open bowl).

205 (37) Φ 11/23 (FIG. 11)

D. ? o.22; H. o.o49.

Rim.

Red-brown.

206 (34) Φ 11/23 (FIG. 11)

D. ? o.22; H. o.o36.

Rim.

Brown.

Uncatalogued: 11.

Uncatalogued: 1.

207 (35) Φ 11/23 (FIG. 11)

D. ? o.225; H. o.o36.

Rim.

Brown.

208 (622) Φ 11/AK (FIG. 11)

D. c.o.20; MPH. o.o47.

Rim fragment.

Brown-black, streaky, still highly lustrous on rim o/s.

209 (651) Φ ?11/D (FIG. 11)

D. o.175; H. o.o19.

Rim (2 fragments joining).

Red.

Incised: three wide, deep grooves—two on inturn and one just below carination.

For grooves cf. 231.

Uncatalogued: none identifiable.

(d) 'Cycladic' bowl

Considerably taller than (a) and (b), with ring (concave underneath) or flat base and loop handle (no spout); slipped/burnished all over.

Barber 1974, 45 Type 6.

Barber 1978, i. 158, ii. 29.

Barber 2007, 188 DB Shape 4 (c).

Sherratt 2000: no examples in DB but cf. 274–5, 13.b.i.295 (non-standard fabric) and fig. 187 d, pl. 420.

Finds from Kea, Melos and Thera. This form starts later (within Phylakopi II and Kea IV) than 4 (b) and lasts longer than the preceding two, apparently throughout the Middle Bronze Age and into LC I.

Inturned rim bowls do not seem to appear in Lerna IV, where everted rim bowls are common (Rutter 1995), but are found from early Lerna V (Zerner 1988 1 and figs. 1, 2—though most appear to be deeper than their Melian counterparts).

210 (315) Φ 11/23 (FIG. 11)

D. c.o.17; H. o.o35.

Rim, with complete cylindrical HVPL (unusual form).

Red-brown (faded) a/o.

Such bowls with lugs are rarer, and probably earlier (Caskey 1972, 378).

211 (36) Φ 11/5 (FIG. 11)

D. ? o.22; H. o.o43.

Rim.

Brown.

212 (38) Φ 11/23 (FIG. 11)

D. ? o.18; H. o.o43.

Rim.

Brown i/s, reddish o/s.

213 (318) Φ 11/23 (FIG. 11)

D. c.o.185; H. o.o49.

Rim, with complete unpierced horizontal lug.

Brown-blackish, streaky a/o, blacker i/s.

214 (317) Φ 11/5 (FIG. 11)

D. c.o.135; H. o.o59.

Rim (2 sherds joining); a hint of the beginning of the base at the lower break.

Black.

In white: traces (not shown on drawing) of painted decoration on exterior below carination—a zone of discs above another of upright bars.

215 (316) Φ 11/5 (FIG. 11; PLATE 7)

D. c.o.22; H. (of rim, inc handle) o.o62.

Rim, with complete horizontal loop handle rising from rim.

Grey biscuit.

Black, shiny.

Pencil mark on interior 'avap', in cursive script.

216 (652) Φ ?11/C (FIG. 11)

D. c.o.20; H. o.o74.

Rim, with substantial section of body, of IRB, perhaps Cycladic; there is a deliberate perforation (D o.o04) in the body.

Red, probably originally lustrous, at least o/s.

In white paint: traces of decoration, indecipherable.

217 (302) Φ 11/24 (FIG. 11)

D. ? c.o.20; H. (of rim only) o.o35; (of rim, including handle) o.o55.

Rim (2 fragments joining—several other fragments are probably from the same vessel), with complete loop handle.

RW (/ DB); relatively fine, pale biscuit.

Red, seems unlikely ever to have been burnished; the wash (a/o) is streaky in places.

218 (303) Φ 11/24 (FIG. 11)

D (of base) o.o41; H. o.o22.

Base, probably from same vase as **217** above.

RW (/ DB), as preceding piece.

219 (320) Φ 11/28 (FIG. 11)

D. c.o.15; H. o.o34.

Rim; slightly concave.

Inturned-rim jar

The mouth is narrower than that of the IRBs and the vessel is taller in proportion to its diameter. A single example.

225 (314) Φ 11/23 (FIG. 12; PLATE 7)

D. c.o.o7; H. o.o61.

Complete profile.

WT.

Brown all over o/s; i/s dark surface but not slipped and burnished.

Greyish fabric.

Black.

220 (653) Φ ?11/B (FIG. 11)

D. o.16; H. o.o57.

Rim, with whole horizontal RS loop handle, probably of Cycladic bowl, though relatively shallow.

Brown.

221 (565) Φ 11/23 (FIG. 11)

D. ?c.o.14; H. o.o4.

Fragment of carination, with stump of loop handle.

Red-brown wash/?burnish all over (very worn o/s).

Incised: cc grooves o/s, below carination.

222 (370) Φ 11/5 (FIG. 11)

D. (of base) c.o.o6; H. o.o25.

Base (complete); ring form; the edges of the ring worn.

Grey, slightly 'pumicey' fabric.

Black.

223 (20) Φ 11/1 (FIG. 11)

D. (of base) o.o7; H. o.o18.

Base; ring form; the edge of the foot worn.

Fabric as **222**.

Black.

Impressed: potmark, underneath—two narrow dimples, perhaps incomplete, cf. Atkinson *et al.* 1904, 179 J7, but the elements on **223** are more widely spaced.

224 (369) Φ 11/28 (FIG. 11)

D. (of base) c.o.o55; H. o.o28.

Base; ring form.

Grey fabric.

Black.

Uncatalogued: 32 (7 with stumps or parts of loop handles); also: 9 in greyish fabric, 6 of which bear a simple ridge.

Uncatalogued: 1 rim ?same vase as 220, 1 body sherd with stump of RS loop handle.

Impressed: potmark, on base—two round depressions, quite wide apart, perhaps incomplete, cf. Atkinson *et al.* 1904, 179 J7 but the elements on **225** are more widely spaced.

Cf. (for shape) Davis 1986, 48 V-6 and pl. 30.

Also: **226** (787) Φ ?II/C (PLATE 7)

D. c.o.15; H. o.o57.

Body sherd ?of jar, with complete vertical RSH (with narrow slit rather than normal perforation).

Pale, fine fabric, not standard; WT.

Thick dark red exterior coat, not burnished.

Not clear where this piece belongs but probably LC.

Uncatalogued: none.

Inturned-rim bowls, with beaded rim and external groove

Slipped and burnished all over. There are frequent traces of simple decoration in white, especially lines in the rim grooves, and bars on the rims (on the drawings these are indicated with a 'W'). It is not clear whether the HVPLs and channel spouts, for which there is evidence, were standard.

Barber 2007, 189 DB Shape 5.

Parallels for this interesting form, which is common amongst the material presented here, are curiously hard to find. One piece from Kea is said (Caskey 1972, 378 D41 (b) and fig. 9) to be 'rare but not unique'. Unless the type was peculiarly popular at Phylakopi, that could indicate that it belongs to a period (transitional EC III/MC) not well represented at Ayia Irini. In any case, its relatively early date there is suggested by the lack of examples from Period V (later MC), and this view can be supported by appealing to its presence on Paros where there is plenty of EC III B material (Overbeck 1989a, 10 nos. 61, 62, fig. 25 (top right and bottom left), pl. 5 (mid left and top right), red burnished, in clay said to resemble Keian).

227 (338) Φ 11/23 (FIG. 12)

D. c.o.115; H. o.o39.

Rim, with HVPL.

Red.

In white paint (not shown on drawing): line in external groove; the lug outlined.

228 (333) Φ 11/23 (FIG. 12)

D. c.o.185; H. o.o42.

Rim, with HVPL.

Brownish-red.

In white paint (not shown on drawing): faded line in external groove; faded stripes on rim.

229 (334) Φ 11/5 (FIG. 12)

D. c.o.17; H. o.o56.

Rim, with part HVPL.

Brownish.

In white paint (not shown on drawing): line in external groove and stripes on rim, mostly very faded; the lug root outlined and other decoration on body.

230 (339) Φ 11/23 (FIG. 12; PLATE 7)

D. c.o.165; H. o.o34.

Rim, with HVPL.

Reddish.

In white paint (not shown on drawing): line in external groove; very faded stripes on rim; the lug outlined.

231 (345) Φ 11/23 (FIG. 12; PLATE 7)

D. c.o.23; H. o.o33.

Rim, with stump of loop handle.

Purplish-brown.

In white paint (not shown on drawing): line in rim concavity o/s; probably some decoration on top of the rim; below, wide vertical grooves.

232 (322) Φ 11/23 (FIG. 12; PLATE 7)

D. c.o.135; H. o.o4.

Rim.

Brown, blacker i/s.

In white paint (not shown on drawing): line in external groove.

233 (340) Φ 11/23 (FIG. 12; PLATE 7)

D. ? c.o.17; H. c.o.o37.

Rim, with most of spout (one side defective).

Reddish.

In white paint (not shown on drawing): line in external groove, and at spout/body junction.

234 (326) Φ 11/23 (FIG. 12)

D. ?c.o.25; H. o.o52.

Rim; worn.

Red o/s, brown i/s.

235 (325) Φ 11/23 (FIG. 12)

D. c.o.205; H. o.o38.

Rim.

Red.

In white paint (not shown on drawing): trace of line in external groove.

236 (329) Φ 11/23 (FIG. 12)

D. c.o.23; H. o.o42.

Rim.

Dark red.

In white paint (not shown on drawing): line in external groove.

237 (324) Φ 11/23 (FIG. 12)

D. c.o.225; H. 0.043.

Rim.

Brown.

In white paint (not shown on drawing): line in external groove.

238 (323) Φ 11/5 (FIG. 12)

D. c.o.135; H. 0.051.

Rim.

Brown-black, streaky.

In white paint (not shown on drawing): trace of line in external groove.

239 (330) Φ 11/23 (FIG. 12)

D. c.o.17; H. 0.067.

Rim.

Dark red o/s, dark brown i/s.

In white paint (not shown on drawing): line in external groove and very faded stripes on rim.

240 (332) Φ 11/5 (FIG. 12)

D. c.o.225; H. 0.071.

(Variant form)

The rim beaded, with external groove, but the inturn is short and sharply angled.

Barber 2007, 217 Coarse Shape 10.

This variant may be later (late MC–LC) than the preceding. Note that one Cycladic bowl (Barber 2007 no. 7 (DB Shape 4 (c)) has a slightly beaded rim, though the feature is unusual.

243 (321) Φ 11/21 (FIG. 12)

D. c.o.185; H. 0.029.

Rim.

Black.

In white paint (not shown on drawing): line in external groove.

244 (335) Φ 11/5 (FIG. 12)

D. c.o.165; H. 0.042.

Rim.

Brownish.

In white paint (not shown on drawing): line in external groove; stripes on rim.

245 (337) Φ 11/23 (FIG. 12; PLATE 7)

D. 0.20; H. 0.062.

Rim (2 sherds joining).

Red.

Carinated bowl or goblet

The form (cf. **553**, LL) may be similar to Atkinson *et al.* 1904, 134 Shape 8 (LL) and pl. xxvii. 3; also p. 134 fig. 106 (another piece, restored).

Cf. Sherratt 2000, 238, 13.b.i.77–8 and figs. 151, 152 *a*, pls. 317–18.

Rim; top of rim and extremity of carination worn. Brownish.

In white paint (not shown on drawing): line in external groove and stripes on rim.

241 (331) Φ 11/23 (FIG. 12)

D. c.o.24; H. 0.065.

Rim.

Brownish.

In white paint (not shown on drawing): line in external groove and stripes on rim, mostly very faded.

242 (377) Φ 11/28 (FIG. 12)

D. ?; L. (max. pres.) 0.072.

Spout, with bit of rim; long, narrow channel, the sides rolling inward somewhat towards the tip.

Grey-brown.

Uncatalogued: 31 rims, 10 lugs/part lugs, 4 spouts/part spouts.

Uncatalogued: 1 rim.

In white paint (not shown on drawing): line in external groove; faded stripes on rim; traces of decoration on lower body, possibly as follows: two cc lines just below carination, then ?retorted spirals; at one point there seems to be a vertical line.

246 (336) Φ 11/5 (FIG. 12)

D. c.o.16; H. 0.055.

Rim.

Grey fabric.

Black-brown, shiny, darker i/s.

In white paint (not shown on drawing): traces of line in external groove.

Uncatalogued: 3 rims.

247 (551) Φ 11/23 (FIG. 12)
D. ?c.o.21 at carination; H 0.049.
Body sherd.
DW.

The Dark Washed class (Vaughan and Williams 2007, 102) is regarded as generally later (late MC/early LC) than the bulk of DB ware.

Uncatalogued: none.

Stemmed bowl

(a) (sometimes called 'fruitstand'). Wide shallow bowl; oval lip (thickness varies), grooved o/s; hollow stem; slipped and burnished a/o.

Barber 1974, 30 (Stemmed Bowl).

Barber 1978, i. 159 Shape 16, ii. 30.

Barber 2007, 191 DB Shape 9 (c) (where the rim is not thickened).

This seems a Melian type (early MC at Phylakopi), although there are one or two sherds, possibly of this form, from Siphnos and Naxos. Perhaps related to an MM II shape.

248 (23) Φ 11/1 (FIG. 12)

D. c.o.30; H. 0.021.

Rim; o/s completely worn off.

Red.

In white paint: band in junction of rim and bowl i/s; on broad lip, trellis pattern.

249 (22) Φ 11/23 (FIG. 12)

D. c.o.30; H. 0.035.

Rim.

Red.

In white paint: band in lip/bowl angle; on broad lip, traces of trellis pattern.

Uncatalogued: 2 rims.

Uncatalogued: 1 rim with perforated lug.

(b) Angular, concave, everted rim

Barber 1978, i. 161 Shape 4 b, ii. 32.

Barber 2007, 190–1 DB Shape 9 (b).

These pieces seem not far from the loop-handled goblet rims in Grey Minyan illustrated by Dickinson (2007, 240 nos. 7–11 and fig. 6. 18).

Parallels from Kea, where the contexts are earlier MC; cf. Overbeck 1989a, 10 no. 63 and pl. 6 middle.

250 (16) Φ 11/1 (FIG. 13)

D. 0.17; H. 0.025.

Rim.

Red.

In white paint: at and below rim o/s, groups of bars, alternately above and below a cc line (as Barber 2007, 190 no. 24 and fig. 6. 2); below, angular multi-line festoons (?) pendent from carination.

251 (17) Φ 11/1 (FIG. 13)

D. ?c.o.25; H. 0.055.

Rim.

Red.

In white paint: cc band in angle of rim o/s; decoration similar to **250** but upper bars are thicker and slightly oblique; possible traces of other decoration below carination.

252 (343) Φ 11/21 (FIG. 13)

D. 0.16; H. 0.03.

Rim; upright, sloping to a high carination, with ridge below.

Brownish.

Cf. Goldman 1931, 126 and fig. 170–9.

Uncatalogued: none.

(c) Flat, thick, upright rim, usually concave.

Barber 2007, 189–90 DB Shape 9 (a).

From Phylakopi and Kea, where the contexts are early MC.

253 (26) Φ 11/5 (FIG. 13)

D. c.o.28; H. c.o.035.

Rim.

Brown; shiny i/s, dull o/s.

254 (13) Φ 11/1 (5) and 23 (2) (FIG. 13)

D. o.27; H. (max.) o.o24.

Rim (7 fragments, 1 + 2 joining + 4 joining—of the 4, two are from Box 23), with one complete lug and part of another.

Red.

In white paint: band at rim o/s.

255 (14) Φ 11/1 (FIG. 13)

D. ?c.o.25; H. o.o25.

Rim, with part of one lug.

Red.

256 (15) Φ 11/1 (FIG. 13)

D. c.o.26?; H. o.o19.

Rim; the rim more angular than usual.

Red.

In white paint: lines in angle of rim i/s, and in angle of offset of lip o/s; on top of rim, indistinct decoration (?bars).

257 (42) Φ 11/19 (FIG. 13)

D. o.26; H. o.o25.

Rim and part of profile.

The fabric much harder fired than usual for this class.

Red; only moderately glossy i/s, o/s duller and somewhat streaky.

In matt black: stripes on top of rim (presumably in blocks of which part of one is preserved here); outside, immediately below carination, another block of stripes, between horizontal cc bands.

Purely black decoration seems rare on DB pottery, where it is usually found either as part of polychrome designs (cf. Overbeck 1989b, 12) or in a reserved or pale slipped area (cf. **297**, **290**; *ibid.* 194, 13–1 = Caskey 1972, 8 E4 and pl. 86).

Conceivably imported from another island.

258 (30) Φ 11/23 (FIG. 13)

D. ?c.o.30+; H. o.o46.

Rim.

Brown, quite shiny i/s, dulled o/s.

Uncatalogued: 10 rims, 2 with complete lugs.

Bowls, jars, and goblets, with everted rims

(a) Plain; (b) Angular.

The latter are closely related to Grey Minyan forms, as are three pieces here assigned to the (a) group (**262**, **263**, **264**).

Barber 1974, 30.

Barber 1978, i. 161 Shapes 3, 4, ii. 31–3.

Barber 2007, 191 DB Shape 11.

For Minyan parallels, see Mylonas 1973, pls. 214–17, 234 no. Γ–23; also section heading, above.

Some (as noted below), while slipped and burnished all over o/s, are so treated only on the eversion i/s, but this does not seem necessarily to indicate a closed shape.

The contexts are primarily early MC at Ayia Irini and Phylakopi, although some are later. Some pieces also from Paros and Siphnos. The distinction and dating of the forms need further work.

(a) Plain

259 (357) Φ 11/23 (FIG. 13)

D. ?c.o.20; H. o.o37.

Rim; groove in angle of eversion; worn on part of i/s and on edge of rim.

Red; scratched; the groove filled with white (not shown on drawing).

Cf. Siedentopf 1991, 67 no. 222 and pl. 50 (Matt-painted) (Stadt IX).

260 (349) Φ 11/5 (FIG. 13)

D. c.o.22; H. o.o28.

Rim.

Brown; slipped and burnished on eversion only i/s.

261 (356) Φ 11/23 (FIG. 13)

D. ?c.o.22; H. o.o41.

Rim; a split in the rim.

Red.

262 (348) Φ 11/23 (FIG. 13)

D. c.o.195; H. o.o42.

Rim.

Rich brown; slipped and burnished on eversion only i/s.

263 (350) Φ 11/5 (FIG. 13)

D. c.o.21; H. o.o79.

Rim.

*(b) Angular*See also above, **250** etc., Stemmed Bowl (b).**265** (352) Φ 11/28 (FIG. 13; PLATE 8)

D. ?c.o.17; H. c.o.o43.

Rim; sharply everted; only small sections of actual rim and sharp carination, respectively, survive.

Brown.

Incised: cc grooves on shoulder; in white paint (not shown on drawing): traces, mainly in the grooves.

266 (355) Φ 11/5 (FIG. 13)

D. ?c.o.30; H. o.o68.

Rim, flattened on top; with complete strap handle from just below rim to shoulder.

Red-brown, streaky; worn on o/s.

(Unidentified form)

268 (351) Φ 11/23 (FIG. 13)

D. ?c.o.21; H. o.o35.

Rim; everted lip.

Brown; apparently burnished a/o, but o/s burnish almost entirely worn away.

Stems

Most pedestals are plain but there are rare ringed examples (see PLATE 22; Uncatalogued Grey Minyan). The larger pieces are likely to be from stemmed bowls, the remainder from goblets.

Slipped and burnished all over, including band i/s hollow pedestal, reaching only part (c 1/3) way up on larger pieces.

Barber 2007, 193–4 nos. 45–7 and pl. 24 (DB features).

On Kea, the Grey Minyan equivalents are common in Period IV, with plain stems mostly, though not exclusively, later than ringed. In Period V (Davis 1986, 84–5) finds of goblets/ring stems, whether local or imported, are rare.

269 (319) Φ 11/23 (FIG. 14)

D. (of base) c.o.o78; H. o.o59.

Part pedestal and base, with low stem; part of base of bowl preserved at the top of the pedestal; the pedestal is hollow.

Red.

270 (–(MM453)) (FIG. 14)

D. (interior, max) o.o92; H. o.o72.

Black-brown; slipped and burnished on eversion only i/s.

264 (353) Φ 11/23 (FIG. 13)

D. ?c.o.165; H. o.o6.

Rim, with complete strap handle from shoulder to carination.

Brown; slipped and burnished on eversion only i/s.

267 (354) Φ 11/23 (FIG. 13)

D. o.28; H. o.o43.

Rim, with one stump of oval-sectioned loop handle on shoulder.

Red.

Incised: 3 cc grooves on shoulder.

In white paint (not shown on drawing): shoulder grooves filled; traces of extensive decoration on body below carination—?triple loop.

Uncatalogued (*a + b*): 10 rims, 4 strap handles.

Uncatalogued: 1 rim with strap handle.

In white paint: stripes on rim.

Uncatalogued: none.

Part of stem, with part base of the interior (one small fragment is separate but joins the main piece).

Red.

In white paint, i/s: complex of linked curvilinear loops surrounding central rosette; extensive dotted filling.

Cf. (for dotted filling) Barber 2007, 195 nos. 50, 52 and fig. 6. 4.

271 (-(MM452)) (FIG. 14; PLATE 8)

D. (base) 0.115; H 0.07.

Base, stem and part of lower body; a ridge/ring where the body of the vase starts to spread at the top of the stem.

Red.

In white paint (fugitive, not shown on drawing): traces of cc bands on spread of foot and at top of stem; between them, vertical stripes.

Lids

Various forms.

Slipped and burnished all over unless otherwise stated.

For references, see individual entries.

273–4 are probably M–LC; the others are not closely dateable.

273 (132) Φ 11/21 (FIG. 14)

D. 0.09; H. 0.012.

Part of lid, with stump of central RSH and one surviving perforation (? of two).

Fabric is harder fired and less gritty than normal (similar to Brown-Smoothed ware); possibly DFI.

Black-brown.

In white paint: petals (?) round root of handle.

Seems a cross between Atkinson *et al.* 1904, pl. iv. 5 (two perforations) and fig. 73 (p. 88 and n. 3)—both DFI, the latter noted as a common later type. For an MC example in a different fabric see Davis 1986, 30 I–1 and pl. 24.

274 (362) Φ 11/5 and 23 (FIG. 14)

D. 0.087; H. 0.011.

About 2/3 of lid (2 sherds joining); bed of RSH (broken off); two small perforation at opposite edges; part of the surface flaked.

Possibly DFI.

Jars

Various forms.

The fabric of the grooved pieces is more uniform than is usual in DB—there is no grey core.

Grooved decoration is popular in DB (Barber 2007, 189, 194 nos. 15, 49 and fig. 6. 2, pl. 24 *b, d* for ‘fluted’ decoration, with broader, vertical grooves) but the kind illustrated by **277** etc. is unusual. Possible parallels include grooves and festoons on Grey Minyan (Dickinson 1977 fig. 2); see also variant (*c*), below.

272 (-(MM451)) (FIG. 14)

D. (base) 0.137; H. 0.116.

Base and stem; the base of the bowl survives but its surface is entirely destroyed.

Red.

In white paint (fugitive, not shown on drawing): traces of cc bands, thicker on spread of foot and at top of stem; in a zone towards the foot, possibly vertical stripes, as **271** (-(MM 452))—these may be in groups rather than continuous.

Uncatalogued: 14, 1 of which is ringed.

Uncatalogued: 1.

Brown on top; black underneath; apparently smoothed, but not burnished.

275 (-(MM481)) (PLATE 8)

D. 0.087; H. 0.029.

Large section of lid, with pommel; the rim and surfaces badly worn.

Tiny trace of original red burnish survives.

Cf. Barber 1974, 28 no. -(MM101) and pl. 2 *a* (Red Burnished).

276 (380) Φ 11/1 (FIG. 14; PLATE 8)

D. 0.024; H. 0.029?

Rim and side of ?lid.

Red.

Incised: cc grooves, filled with white (not shown on drawing).

A very unusual fragment, perhaps best interpreted as a lid since the form is slightly conical.

Uncatalogued: none.

(a) Relatively deep neck; rim somewhat everted; strap handle from rim to shoulder.

277 (358) Φ 11/28 (FIG. 13; PLATE 8)

D. c.o.95; H. o.o75.

Rim; the surface very worn.

Brown; slipped and burnished o/s, also apparently round i/s of mouth; the burnish mostly worn off.

Incised: frequent vertical grooves; perhaps a white painted line (not shown on drawing) round the rim i/s.

A likely parallel for the shape, although no drawing has been published, is a burnished jar from an MC grave on Kea (Overbeck 1989b, 191 no. 8–15 and pl. 93 *d*, Period IVc).

(b) Short neck; thickened, concave rim

Cf. Barber 2007, 191 DB Shape 10.

Probably early MC.

279 (344) Φ 11/23 (FIG. 14; PLATE 8)

D. c.o.18; H. o.o39.

Rim.

Reddish-brown; burnished all over o/s, on rim only i/s.

In white paint (not shown on drawing): a broad line o/s in the neck angle.

280 (515) Φ 11/K (PLATE 8)

D. c.o.17; H. o.o48.

Rim.

Red, shiny; slip /burnish only covers upper part of body and raised rim i/s.

In dark and ?white paint: the burnished area divided and defined below by dark cc lines; ?traces of white decoration in between.

The exterior fabric and decoration are very similar to that of the jug **297** below.

(c) Closing; upright rim

The form is distinctive but hard to parallel.

For grooved decoration, see head of entry and Goldman 1931, 139–42 with figs. 190–7, 197.

283 (359) Φ 11/26 (FIG. 14; PLATE 8)

D. c.o.85; H. o.o28.

Rim (3 sherds joining); very worn on top and outer edge of rim.

Brown; burnished all over o/s, i/s on inner edge of rim only.

Incised: frequent horizontal grooves, perhaps lined with white (not shown on drawing).

The wear on the rim top perhaps suggests the presence of a lid.

278 (368) Φ 11/5 (1) and 23 (3) (FIG. 13)

D. ?; L. (max. pres.) (of joined 3) o.o97; (of singleton) o.o61.

Body sherds (4, of which 3 join), probably of same closed globular vessel.

Brown; burnished all over o/s (only).

Incised: triple grooves form parts of continuous festoons; the grooves possibly filled with white.

Uncatalogued: none.

281 (549) Φ 11/1 (FIG. 14)

D. c.o.18; H. o.o29.

Rim.

Red; slip and burnish apparently all over o/s, on neck i/s and at least upper part of interior.

In white paint (not shown on drawing): a broad line o/s in the neck angle.

282 (550) Φ 11/23 (FIG. 14)

D. c.o.18; H. o.o32.

Rim.

Brown, originally lustrous; all over o/s, on neck i/s, below which the surface colour is dark grey, probably due to firing.

In white paint (not shown on drawing); a broad line o/s in the neck angle.

Uncatalogued: 1 rim.

285 could belong to this vessel—or another similar. Cf. perhaps Sherratt 2000, 270 13.b.i.271 and fig. 180, pl. 404 top right, for shape (with B&R decoration).

284 (361) Φ 11/26 (FIG. 14)

D. c.o.11; H. o.o33.

Rim.

Black; burnished all over o/s, i/s on inside of rim only.

Incised: frequent horizontal grooves starting below upright section of rim.

285 (360) Φ 11/5 (FIG. 14; PLATE 8)

MD. 0.076; H. 0.057.

Body sherd, with broad, horizontally pierced lug; the outside of the lug very worn.

Black-brown; burnished all over o/s.

Amphora?

Pronounced neck and widely flaring lip.

Cf. Barber 2007, 228–30 and fig. 6. 16 (Coarse).

Perhaps later MC.

286 (658) Φ ?11/D (FIG. 15)

D. 0.17; H. 0.04.

Rim of ?amphora.

DB.

Red.

287 (347) Φ 11/1 (FIG. 15)

D. 0.145; H. 0.038.

Rim; worn on o/s edge.

Red; i/s burnished on rim and neck only; o/s the burnish appears to terminate above the bottom of

Barrel or ovoid jar

Barber 1978, i. 154–5, ii. 25–6.

Barber 2007, 193 DB Shape 15.

Cf. **100** etc. (Geometric).

A distinctive MC shape, which begins in EC III B in EMP fabric and does not appear to outlast early MC (Davis 1986, 85). Finds in DB are from Phylakopi and Kea.

288 (548) Φ 11/1 (FIG. 15)

D. ?0.38; H. 0.017.

Rim, with beginning of interior ledge.

Red; faded underneath o/s.

289 (346) Φ 11/1 (FIG. 15)

D. 0.32; H. 0.014.

Rim (small fragment); broken at point where ledge is formed i/s.

Red; slipped and burnished on top of rim and on lip i/s—none below rim o/s.

Cf. Barber 2007, 193 no. 42 and fig. 6. 3.

The limited burnish o/s is unusual.

290 (32 (MM161) (PLATE 8)

D. 0.215; H. 0.287.

Almost complete, with 4 perforations in the ledge of the rim and two HVPLs; mended; some restoration.

Incised: frequent horizontal grooves down to the bottom/top of the lug; below, burnish only.

Uncatalogued: 3 body sherds with grooved decoration, probably from same vessel as **283** or **285**.

Uncatalogued: 1 body sherd with grooved decoration.

the neck but it may have been covered by a white band there of which a piece remains at the left hand side.

In white paint (not shown on drawing): line at neck/body junction.

Uncatalogued: none.

Slipped and burnished o/s down to a point above the HVPLs, also in rim ledge and i/s neck.

High on the shoulder, a white painted band, defined by dark lines, contains indistinct thick, dark linear elements, perhaps ‘butterfly’ pattern; between the burnished area, also defined at the bottom by a dark line, and the level of the HVPLs, is a wavy line.

The technique resembles that of **297** and some vases from Kea (for references, see **257**).

The old excavation number (32) is on the inside of the neck.

The find-place of this vessel was ‘J. 2. 1a at 97. 40 above floor’, a level (PNB 7) for which an early II date is suggested.

Pithos/pithoid jar

The rim has the ledged form characteristic of barrel jars.

Barber 1978, i. 155, ii. 26.

Possible parallels from Paros. Presumably contemporary with barrel/ovoid jars.

—(MM163) (FIG. 16). Previously published but without illustration in Barber 1974, 30.

Uncatalogued (barrel/ovoid jars, pithoid jars with ledged rim): 2 fragmentary rims.

Bridge-spouted type jars

Barber 2007, 191 DB Shape 12; see also 228–30 (Coarse).

The form, common in other fabrics but hard to parallel in DB, is not closely dateable (M–LC). The DB pieces should be mostly early MC. Those with better quality surface treatment are likely to be earlier.

291 (514) Φ 11/8b (FIG. 15; PLATE 8)

D. c.o.105; H. o.o16.

Rim.

Fine buff fabric—almost like good CW; not characteristic of DB.

Red coat o/s, not lustrous, and a blob (only) at rim i/s.

In creamy white paint: lozenges pendent from rim.

Cf. Barber 1974, 47 no. 210 (MM83), photo.

Dawkins and Droop 1911, pl. vii—said to be an imitation of Kamares ware. The pointed oval is like those seen in CW decoration, especially in the early Curvilinear style (e.g. Atkinson *et al.* 1904, pl. xv. 9).

Possibly imported.

292 (365) Φ 11/7 (FIG. 15)

D. ?c.o.27; H. o.o29.

Rim.

Coarse, gritty fabric, not standard DB.

Red; washed/burnished all over o/s, extent of burnish below unclear.

293 (364) Φ 11/7 (FIG. 15)

D. ?c.o.27; H. o.o32.

Rim; ?trace of beginning of loop handle at rim.

Red (matt); washed/burnished all over i/s, on rim o/s, extent of burnish below rim o/s unclear.

294 (367) Φ 11/23 (FIG. 15)

D. ?c.o.22; H. o.o46.

Rim.

Brown, streaky; burnished a/o, blacker i/s.

295 (366) Φ 11/5 (FIG. 15)

D. ?c.o.23; H. o.o43.

Rim; beginning of ?loop handle at rim; worn.

Black-brown; burnished all over o/s; i/s unclear.

296 (341) Φ 11/5 (FIG. 15; PLATE 8)

L. (max. pres.) o.o69; H c.o.o31.

Spout; cut away towards the tip; the hole complete.

Brownish; worn.

In white paint (not shown on drawing): line at spout/body junction.

The form of the spout aligns the vessel with the earlier CW beaked jugs.

Uncatalogued: none.

Jug

The shape is globular but the top and bottom sections are separated by an indentation. There seem to have been two spouts—one rising vertically from the centre of the body, one at the side. The (presumed) handle must have been attached to the upper part of the central spout.

A single example of a very unusual form. The surface treatment and parallels with the decoration of Melian bowls suggest a date of EC III B/MCearly.

297 (29 (MM384)) (FIG. 15)

H. o.191; D. (body) o.22, (base) o.o75.

Most of vessel survives, apart from neck and side spout; mended.

Fine brick-coloured fabric, unusual for Melos.

Red, the slip and burnish (a/o) not always even;

the burnish worn in places, especially the lower part; white slip on the indentation.

In matt black paint (over the slip): between lines, long curving lines and at least one pendent triangle, ?with vertically striped interior; also at least one curtailed zigzag/wavy line.

The decorative system (dark designs on white slip) is similar to that on Melian bowls; also cf. **280**, **290**. Curtailed elements are most characteristic of SMP (cf. **178**, Atkinson *et al.* 1904, pl. xiii. 1).

The old excavation number is identified from the

rough sketch and description in PCD. Its context (PNB 6) was J 4.5 94.54-29, which may be early II.

Uncatalogued: none.

Bases

298 (373) Φ 11/23 (FIG. 17)

D. (of base) ??c.o.55; H. o.o24.

Base of open vessel; flat; worn on underside.

Brownish a/o, darker i/s.

Cf. **58** (Brown-Smoothed ware), but **298** has a lustrous surface and is slightly thicker.

299 (374) Φ 11/5 (FIG. 17)

D. (of base) c.o.045; H. o.o3.

Base of open vessel; flat; the underside worn.

Red (burnish or wash) a/o; worn.

300 (376) Φ 11/23 (FIG. 17)

D. (of base) c.o.074; H. o.o41.

Base (2 sherds joining) of large closed vessel; flat.

Brown o/s, except on underside where rough and worn.

301 (375) Φ 11/1 (FIG. 17)

D. (of base) c.o.045; H. o.o42.

Base of large closed vessel, thick-walled; flat; the edges of the base worn.

Red o/s; worn.

The fabric of the following pieces is not standard for DB and they may be considerably later in date:

302 (7) Φ 11/1 (FIG. 17)

D. (base) c.o.06; H. o.o27.

Base of ?cup.

Fine buff fabric.

Red o/s.

In white paint: TTR.

303 (396) Φ 11/24 (FIG. 17)

D. (of base) c.o.045; H. o.o41.

Base of cup; flat.

Fine fabric, as **304**.

Red, o/s and underneath only; the surface shows traces of lustre but is rather streaky.

In white paint (decoration not shown on drawing): line in the body/base junction; ?traces of decoration on upper part of fragment.

304 (395) Φ 11/1 (FIG. 17)

D. (of base) c.o.07; H. o.o32.

Base of closed vessel; ring base.

Fairly fine, whitish fabric.

Red; coated o/s only all over body and on edge of ring; streaky, much of the lustre gone.

This type of base is often associated with panelled cups, though that form is not known in DB.

May be LC III.

Uncatalogued: 13 flat, 1 ringed.

Other uncatalogued DB: 2 oval-sectioned handles, with central grooves; 11 sherds including 1 rim with ridging immediately below lip; 2 tiny base fragments; 9 body sherds (some heavy).

DECORATION

Barber 2007, 28-33.

The (usually white) paint is now often visible only in shadow.

Most of these pieces are from closed vessels. Chronological indications provided by some motifs accord with the earlier MC date assigned to most of the DB category, since some elements (trellis, **307**; thick zigzag, **305**), also found on other DB pieces, are related to patterns on SMP, and others (running quirk, **312**; elaborate triangle, **313**, pointed oval, **258**) to the earlier Curvilinear Style as found on Cycladic White.

A careful study of DB decoration would be valuable.

305 (3) Φ 11/1 (FIG. 17; PLATE 8)

H. c.o.055.

Body sherd of closed vessel.

Red o/s.

In white paint: cc band with thick zigzag below;

trace of uncertain element—perhaps tip of part of another zigzag.

Cf. Barber 1974, 28 no. 166 (MM86) and fig. 5, photo. Dawkins and Droop 1911, pl. vii, but there the zigzag is vertical.

306 (11) Φ 11/1 (FIG. 17)

H. c.o.o6.

Body sherd of closed vessel, with horizontal RSH.

Red o/s.

In white paint: above handle, a horizontal band; below, part of zigzag.

NB. The handle is shown light on the drawing to distinguish it from the rest of the surface.

307 (10) Φ 11/1 (FIG. 17)

D. ?c.o.24; H. c.o.o72.

Body sherd of closed globular vessel, with small, horizontal RSH (very narrow opening).

Red o/s.

In white paint: all-over trellis pattern.

Cf. Atkinson *et al.* 1904, pl. xi. 15 (SMP, cruder).The handle is shown as **306**.**308** (5) Φ 11/1 (FIG. 17; PLATE 8)

H. c.o.o73.

Body sherd of closed vessel.

Red o/s, now rather dull.

In white paint: traces of at least three thick bands, two undulating.

For somewhat similar designs, cf. Barber 2007, 201 nos. 99–103 and fig. 6. 6 (CW).

309 (2) Φ 11/1 (FIG. 17)

H. c.o.o57.

Body sherd of closed vessel.

Red o/s.

In white paint: running spiral (retorted).

Cf. Barber 2007, 195 no. 62 and fig. 6. 4.

A pencilled mark '27' is unlikely to be from original excavation.

310 (4) Φ 11/1 (FIG. 17; PLATE 8)

H. o.o73.

Body sherd of closed vessel.

Red o/s.

In white paint: one isolated spiral (solid outer circle with interior hook), possibly part of a series, between cc bands.

Isolated spirals are found in CW, as Atkinson *et al.* 1904, pl. xv. 1.**311** (9) Φ 11/1 (FIG. 17)

H. c.o.o72.

Body sherd of closed vessel.

Red o/s.

In white paint: part zone (two elements) of isolated spirals.

The spirals are different sizes; one closely resembles that on **310** (the two sherds possibly from the same vessel).**312** (8) Φ 11/1 (FIG. 17; PLATE 8)

D. ?c.o.30; H. c.o.143.

Body sherds (3 joining) of closed vessel.

Red o/s; worn in places.

In white paint: running quirk between pairs of thick double cc bands; higher up traces of another zone, probably similar.

Cf. Atkinson *et al.* 1904, pl. xiv. 4.**313** (1) Φ 11/1 (FIG. 17; PLATE 8)

H. o.o64.

Body sherd of closed vessel.

Red o/s.

In white paint: part of ?elaborate triangle, with interior filling of horizontal bars; part of another motif.

Cf. Atkinson *et al.* 1904, pl. xiv. 3, 5 etc.; also Barber 2007, 195 nos. 54, 60 and fig. 6. 4.

The motif on this piece is found in both early CW and DB decoration and thus provides significant evidence for relationship between them.

A pencilled number '27' on the interior is unlikely to be from the original excavation.

314 (6) Φ 11/1 (FIG. 17)

H. c.o.o69.

Body sherd of closed vessel; orientation uncertain.

Red o/s; the surface somewhat worn.

In black paint: ?foot/feet of bird(s).

Cf. Atkinson *et al.* 1904, pl. xxi. 1 for form of foot.For (simple linear) black painted decoration on a DB (red) surface, see **257**, **316**.**315** (24) Φ 11/5 (FIG. 17)

H. c.o.o35.

Body sherd of closed vessel.

Harder fired than usual, possibly WT.

Red o/s.

In white paint: part crescent band attached to narrow ?cc band.

316 (516) Φ 11/17 (PLATE 8)

MD. o.o71.

Body sherd of open vessel; orientation?

Red a/o.

In black paint: double and single oblique black lines—the red is more intense in the area within the lines.

Cf. Caskey 1972, 392–3 and pl. 93 G41 (late MC/MH).

Uncatalogued: none with dark decoration; 26 with indeterminate white linear designs.

Uncatalogued: 3 with white decoration (1 with a kind of rock pattern).

Motifs represented on DB pottery (the majority in white)

Bars, horizontal chevrons, dots/discs, dot-filled loops, undulating bands, zigzag, TTR, triangles, rosette, petals?, spirals, trellis, chequer pattern, pointed ovals, bird?, elaborate triangle, quirk, 'butterfly'?

Also some grooved decoration, either plain linear or simple festoons.

POTMARKS

Summary of potmarks in Dark Burnished: **201, 203, 223, 225.**

CYCLADIC WHITE

Atkinson *et al.* 1904, 108–18, with much of 118–19 (see below on B&R).

Dawkins and Droop 1911, 21 ('Melian pre-Mycenaean').

Barber 1974, 30–7.

Barber 1978, i. 178–95, ii. 41–52.

Davis 1986, 5 etc.

Barber 1987, 148–9.

Overbeck 1989b, 11 etc.

Barber 2007, 196–207.

Sherratt 2000, 245–71.

The term 'Cycladic White' has now been adopted for the class called 'Pottery of the Early Mycenaean Style with Designs in Matt Black' in the first report. Pieces are normally decorated in the Curvilinear style, in which two phases can be distinguished (see 'Decoration' below). Use of the B&R technique is quite common in the later stage.

FABRIC, SURFACE TREATMENT, AND PAINT

In the most recent analysis (Vaughan and Williams 2007, 100, 101) four varieties of the fabric are defined: Early Cycladic White (ECW), Cycladic White (CW), Late Cycladic White (LCW) and Coarse Cycladic White (CCW).

Although whiteness is a general characteristic, there is some variation in biscuit and surface colour, especially in LCW and CCW when either or both may be buff or brownish (this is noted in the catalogue only when pronounced). One group within the LCW category, greenish in fabric and with obvious white grits, is distinctive and seems late on grounds of motifs used and the relative carelessness of the decoration; another is thin, 'clinky', and rough to the touch, and mostly consists of late shallow cups. Unless otherwise noted in the catalogue, pieces are in standard CW.

The surfaces (and sometimes the interiors of open vessels) are well smoothed and sometimes self-slipped. The larger vases are naturally rather coarser.

The paint is matt, usually brownish, often powdery when thick, and often uneven/streaky.

DISTRIBUTION AND CHRONOLOGY

ECW is a predecessor of the main series, always undecorated. It was unrecognized at Phylakopi before the recent excavations, where it was found in contexts of Phase B (EC III B). I am informed by Dr Nikolakopoulou that a Thera equivalent of this ware is common at Akrotiri with decoration similar to that of the Geometric styles.

Examples of the main series are found widely on Cycladic sites and sometimes in Crete and on the Greek mainland. Except on Thera, these finds are usually thought to have been imported from Melos.

Decorated Cycladic White is not found in Phylakopi I-iii but is prominent in II-ii (early MC period), when the early Curvilinear style dominates. The later Curvilinear (or Naturalistic) style belongs to Phylakopi II-iii (later MC). It survives, to some extent, into Phylakopi III-i/ii (early LC), though the fabric is usually no longer white and merges into Later Local (see below).

COMMENT

Collation of the contexts of finds at different sites would be useful as would distinction of the characteristics of Thera and Melian CW. Relationships between CW and DB, several examples of which are noted in this article, can be more fully assessed. Clarification of the continued significance of CW in the early LC period is also needed.

Panelled cups

Atkinson *et al.* 1904, 114–16 Shape 5.

Barber 1974, 33.

Barber 1978 i. 184–5, ii. 44–5.

Barber 2007, 196–7 Shape 1.

Base diameters are mostly narrow, even when the body of the vase is large, though they can reach c.5 cm. Other, larger bases which have traces of panelled decoration seem likely to belong to different shapes. The fabric is fine CW except where noted.

The shape begins in early MC, to which period some of the finest examples appear to belong. Most common in late MC. Continued in use in early LC period. Widely found on Cycladic sites (Kea, Melos, Naxos, Siphnos, Thera). There is also a Mainland version.

Rims

Note that a few rims have been catalogued with the decorated pieces, below.

317 (136) Φ 11/?10 (FIG. 18)

D. c.o.13; H. o.o37.

Rim.

In brown paint: line on top of rim; below, double bracket pattern.

318 (172) Φ 11/?10 (FIG. 18)

D. ?c.o.15; H. o.o42.

Rim.

In brownish paint: line at rim; bracket at lip; below, standing spiral. Another element (possibly foliate as on Atkinson *et al.* 1904, 115 fig. 88) from recess of bracket to lip.

Cf. *ibid.* pl. xvi. 5 (for bracket and spiral); **454** etc. (for standing spiral).

319 (163) Φ 11/2 (FIG. 18)

D. ?c.o.14; H. o.o41.

Rim.

In dark paint (patterns faint): narrow zone of thin spirals pendent from rim; on the body, part of ?rosette.

For lip pattern cf. Atkinson *et al.* 1904, 115 fig. 88; also (close though not identical) Mainland panelled cups from Thera (Marinatos 1968–76, v. 31 and pl. 62 *a–b*). The ?rosette is unusual.

320 (164) Φ 11/?10 (PLATE 9)

D. ?c.o.11; H. o.o32.

Rim.

In brownish paint: line at rim; bracket pattern

pendent; below, linked spirals with ‘bird’s head’ projections.

Cf. **321**, **431**.

321 (572) Φ 11/14 (PLATE 9)

L. o.o54.

Rim.

In black paint: running spirals with projecting ‘birds’ heads’.

322 (129) Φ 11/2 (FIG. 18)

D. c.o.10; H. o.o35.

Rim of ?panelled cup; a plastic stud below rim o/s; the surface damaged in places.

In streaky brown paint: line on top of rim; below, a horizontal line forms the top of the panel, in which are groups of triple oblique lines, alternating in direction, zone by zone, so as to form triple chevrons with a central cc line.

This motif looks back to Geometric decoration, cf. Atkinson *et al.* 1904, pl. x. 3, 7 and seems out of place here.

323 (127) Φ 11/14 (FIG. 18)

D. c.o.145; H. o.o56.

Rim (2 fragments joining).

In faded brown paint: wavy line at rim; below, vertical rows of 3-pointed grasses; at the right edge, part of a vertical line, perhaps the edge of the panel, though the wavy line continues.

Cf. Atkinson *et al.* 1904, pls. xvii. 17 (grasses; ?upside down), xvi. 4 (wavy line at rim).

324 (128) Φ 11/2 (FIG. 18)

D. c.o.15; H. o.o63.

Rim.

In uneven brown paint: thick band at rim with another below forming the top edge of the panel, which is filled with a trellis pattern (crosshatch).

Bases

325 (137) Φ 11/2 (FIG. 18)

D. (of base) c.o.055; H. o.o34.

Base (about three quarters) and part of body.

In brown paint: band in concavity; traces of both sides of panel; within, bracket pattern.

326 (138) Φ 11/?10 (FIG. 18)

D. (of base) c.o.035; H. o.o31.

Base (virtually complete) and part of lower body.

In brown paint: line in concavity; one edge of panel; inside, part of spiral with appendage.

Impressed: potmark, on underside—a single dimple, cf. Atkinson *et al.* 1904, 179 J6.

Cf. *ibid.*, pl. xvii. 12.

327 (567) Φ 11/?10 (FIG. 18)

D. (base) o.o48; H. o.o33.

Base (about half) and part of lower body.

Dark buff biscuit.

Thin white slip o/s, including underneath; pale reddish coat all over i/s.

In black paint: band in foot body junction and line on edge of foot; edge of panel shows at one side; in between vertical stripes, blobs and ?foliates.

Cf. Atkinson *et al.* 1904, 115 fig. 88; Barber 1974, 33 no. 20+ (MM29) and pl. 3 f for elements rising vertically from foot.

328 (570) Φ 11/?10 (FIG. 18)

D. (base) o.o36; H. o.o45.

Base (some damage to circumference) and part of lower body.

Remains of red coat i/s.

In black paint: band in foot/body junction; both edges of panel show; in between, wavy line with, above, parts of curvilinear motif(s) including ?bird's leg and part of hook, spiral or floral.

Cf. Atkinson *et al.* 1904, pl. xxi. 1 (bird's foot); xvi. 4 (bird on this shape).

329 (569) Φ 11/?10 (FIG. 18)

D. (base) o.o42; H. o.o61.

Base (slightly chipped) and part of lower body.

Faint traces of red coat i/s.

Parallels for the decoration seem to be earlier and later: Atkinson *et al.* 1904, pls. xi. 15 (not panel) and xii. 20 etc. (SMP: filling of other motifs), pl. xxv. 8 (LL).

In black paint: band in foot body junction; both edges of panel show; well above foot, wavy line.

330 (568) Φ 11/?10 (FIG. 18)

D. (base) o.o46; H. o.o43.

Base (the circumference chipped) and part of lower body.

Remains of red coat i/s.

In black paint: band in foot body junction; both edges of panel show; in between them, wavy line with, above, parts of 3 thick cc lines.

Impressed: potmark, on underside of base—two oval dimples, cf. Atkinson *et al.* 1904, 179 J7.

331 (211) Φ 11/?10 (FIG. 18)

D. (of base) o.o49; H. o.o56.

Base and lower body.

Pale buff, rough fabric, close in texture to some LCW/LL.

In faded reddish brown paint: horizontal bands within the vertical edges of a panel.

Multiple linear banding at the bottom of the panel may be a late feature on this shape.

Cf. Davis and Cherry 2007, 281 P705, P1748 and fig. 7. 8.

332 (118) Φ 11/?10 (PLATE 9)

D. (of base) c.o.o45; H. o.o27.

Complete base; ringed, concave underneath.

In brownish paint: band in concavity; traces of edges of panel and bracket pattern.

Impressed: potmark, underneath—three oval depressions, set in a wide triangle, cf. Atkinson *et al.* 1904, 179 J8, but those on **332** are more widely spaced.

A pencilled mark '13' is unlikely to be from the 1911 excavation.

333 (117) Φ 11/?10 (PLATE 9)

D. (of base) c.o.o45; H. o.o24.

About half of base; ringed, concave underneath.

In brownish paint: band in concavity.

Incised: potmark(s)—remains of four slashes. These are regularly placed round what remains of

the circumference, grouped 1, 2, 1 (there could have been others on the missing part of the circumference), cf. Atkinson *et al.* 1904, 179 A1, 4.

Shallow cups

Atkinson *et al.* 1904, 113–14 Shape 4 *a–d*.

Barber 1974, 31–3.

Barber 1978, i. 182–4, ii. 43–4.

Barber 2007, 198–9 Shape 2 (cups) (also p. 207 Shape 1 (LL)).

The evidence at present available suggests that these cups are a distinctively Melian type and belong mainly to the last phase of Middle Cycladic, with (ii) probably starting later than (i) and certainly continuing into LC. The fine fabric (e.g. 339), however, and early Curvilinear decorative elements (335) seen in some pieces indicate that the form may begin earlier.

(i) (=Atkinson *et al.* 1904, Shape 4 *a–c*). Rim usually thin, slightly everted and concave; strap handle; may be decorated either o/s or/and i/s; some have powdery red i/s.

334 (178) Φ 11/?10 (FIG. 19)

D. ?; H. c.o.037.

Rim fragment, with part of strap handle springing from below rim.

In brown-black paint: the handle roots ringed (trace of the circle lining the lower); a cc band at the level of the bottom of the upper root; in the zone below, a row of open circles.

Cf. Atkinson *et al.* 1904, 113 fig. 86.

335 (153) Φ 11/14 (FIG. 19)

D. ?; H. c.o.072.

Rim fragment, with complete strap handle.

In brown paint: line at rim and handle roots ringed; o/s in two zones: the upper has traces of roughly vertical lines to either side of the handle; the lower has long-stemmed pointed ovals and terminates with the band ringing the base.

A pencilled mark '16' is probably not from the 1911 excavation.

336 (150) Φ 11/2 and 14 (FIG. 19)

D. c.o.145; H. o.o.046.

Rim (2 fragments joining).

In brown paint: a band in rim concavity o/s, then trace of an isolated motif (?spiral); on top of the rim, irregularly spaced blobs; i/s, between cc bands (the uppermost o.o.019 below the rim), a zone of double spirals; a further cc band has rock pattern projecting downward, with trace of a motif or motifs in the centre of the base.

For the double spiral form, cf. Atkinson *et al.* 1904, pl. xvi. 13, but the overall decoration, while not unusual in its individual elements, is hard to parallel.

Uncatalogued: rims 5 (including 4 listed with motifs); body sherds 14 (including 4 listed with motifs); bases c.28, including those with potmarks.

A pencilled mark '12' on the larger fragment is unlikely to be from the 1911 excavation.

337 (151) Φ 11/2 (FIG. 19; PLATE 9)

D. c.o.135; H. o.o.043.

Rim (2 fragments joining).

In brown paint: a band on the outer part of the rim surface, extending o/s to cover the rim concavity; i/s, bit of a cc band o.o.008 below the rim and another at o.o.027.

Cf. Atkinson *et al.* 1904, 113 fig. 85.

A pencilled mark '12' is probably not from the 1911 excavation.

338 (152) Φ 11/2 (FIG. 19)

D. (of base) c.o.041; H. o.o.015.

Base; the base is very slightly concave.

In brownish paint: ?rock pattern rising from the edge of the base.

339 (571) Φ 11/2 (FIG. 19)

D. (base) o.o.046; H. o.o.015.

Base and part of lower body.

In black paint: band of rock pattern at foot/body junction; in field above, trilobate floral.

Cf. Atkinson *et al.* 1904, 115 fig. 88 (for floral).

Incised: potmark, on underside of base, slightly in from the edge—a single nick.

This mark is not represented on Atkinson *et al.* 1904, 179.

340 (154) Φ 11/?10 (PLATE 9)

D. ?; H. c.o.052.

Rim (?), with strap handle; the handle attached slightly below the rim; the surface abraded.

In brown paint: traces only of decoration round handle roots and at rim.

Uncatalogued: 2 rims, 9 bases, 12 body sherds (including 7 handles), mostly decorated.

(ii) = Atkinson *et al.* 1904, Shape 4 *d.* Straight rim; flat base; simple motif on side away from drinker; usually in rough, 'clinky' LCW fabric.

341 (83) Φ 11/?10 (FIG. 19)

D. c.o.13; H. o.o31.

Rim.

The interior possibly dark coated.

In matt streaky brownish paint: very thin line at lip; pendent from it, three lines of which the third coincides with a large disc, also pendent from lip.

This decorative scheme is otherwise unknown.

342 (159) Φ 11/?10 (FIG. 19)

D. c.o.115; H. o.o29.

Rim (2 fragments joining).

In purplish paint: line at rim then, groups of pendent droplets/rock pattern.

Cf. Barber 1974, 31–3 nos. 88 (MM72) and fig. 6, 94 (MM62), both photo. Dawkins and Droop 1911, pl. xiii; also Atkinson *et al.* 1904, pl. xvi. 15; Davis and Cherry 2007, 279 P671, P1743, P742 and fig. 7. 8.

343 (158) Φ 11/2 and ?10 (FIG. 19)

D. c.o.15; H. o.o32.

Rim (2 fragments joining).

Coated red i/s, now worn.

In brown-black paint: thin line at rim; part of double spiral.

344 (157) Φ 11/14 (FIG. 19; PLATE 9)

D. c.o.105; H. o.o35.

Rim.

Greyish fabric.

Apparently coated white on upper part of exterior and a band on the lip i/s; a reddened patch on lower part of exterior.

In brown paint: bracket pattern pendent from rim.

Cf. Atkinson *et al.* 1904, pl. xvi. 13.

345 (162) Φ 11/?10 (PLATE 9)

D. c.o.045; H. o.o3.

Rim.

Close to CWS.

A thin band of white slip on rim o/s and perhaps on the lower interior; perhaps dark coated i/s.

In dark paint: bracket pattern pendent from rim.

Uncatalogued: 1 base of shallow cup (or bowl) outlined in black, with red ?cross underneath.

346 (293) Φ 11/19 (PLATE 9)

D. c.o.11; H. o.o35.

Rim.

?WT.

Thin white slip o/s, band on lip i/s.

In faded brownish paint: line on top of rim; bracket pattern pendent from rim; part (thick diagonal line) of another motif below.

347 (623) Φ 11/AK (FIG. 19)

D. o.113 (varies slightly); H. c.o.05.

Rim and most of body (3 fragments joining), with slight stump of lower root of handle; a shallow vertical groove (apparently deliberate) connects the handle stump with the base-line.

The fabric colour varies from pink (inner) to white (outer).

In black paint: the base ringed; line at rim with pendent continuous bracket pattern; a vertical double spiral rising from the base-line to just below the bracket.

Cf. Atkinson *et al.* 1904, pls. xiv. 9, xvii. 33 for vertical double spiral forms on CW.

348 (156) Φ 11/2 (PLATE 9)

D. (of base) c.o.05; H. o.o19.

Base.

In brown paint: band round base; above, part of circle or spiral.

Decoration possibly as Atkinson *et al.* 1904, pl. xvi. 13.

349 (160) Φ 11/?10 (FIG. 19)

D. (of base) c.o.04; H. o.o27.

Base.

Coated red i/s.

In black-brown paint: band round base.

Cf. Atkinson *et al.* 1904, pl. xvi. 14 etc.

350 (642) Φ ?11/D (FIG. 19)

D. (base) o.o49; H. o.o25.

Base (complete) of shallow cup or bowl.

In black-brown paint: band above base o/s, slightly overlapping onto underside.

Uncatalogued: 2 rims, 5 bases, 1 body sherd.

Semiglobular cups

Barber 1978, i. 202, ii. 56–7, especially variant (*b*) (LL).

Barber 2007, 207–8 LL Shape 3.

See 486 etc. (LL).

It is not clear whether any of the finds of this form from other islands can be attributed to the CW fabric class (cf. Davis 1986, 58 AA-68 and pls. 23, 62, also p. 84; others from Thera, Naxos). The pieces below belong to what seems to be a particularly Melian variant, with slight or no rim eversion.

On Melos at least, the rarity of the shape in CW and the fact that, when found, it is in the later variety of the fabric, helps to confirm its dating primarily to the early LC period.

351 (130) Φ 11/2 (FIG. 19)

D. c.o.105; H. 0.063.

Rim (3 fragments joining). Another sherd (**352**) is almost certainly from the same vessel.

In streaky black-brown paint: line on top of rim; band at rim o/s with pendent loops/wavy line and, below, linked spirals; at bottom of main zone, a thick horizontal band.

Cf. Barber 1974, 38 no. 198 (MM106), photo. Dawkins and Droop 1911, pl. x. (decoration much cruder).

352 (131) Φ 11/2 (PLATE 9)

See **351**.

D. c.o.105; H. 0.059.

353 (500) Φ 11/3 (FIG. 19)

D. c.o.18; H. 0.042.

Rim; slight concavity below lip.

In rather streaky black paint: line at rim with, below, zone of foliates; then, three cc lines.

Cf. Atkinson *et al.* 1904, pl. xxvi. 6 (LL).

354 (207) Φ 11/24 (PLATE 9)

H. c.o.041.

Body sherd, with part of strap handle, perhaps of SG cup.

In black paint: on body, 2 broad cc bands; on handle, ?bars.

Cf. Atkinson *et al.* 1904, pl. xxv. 8 (Vafio cup) for bars on handle.

355 (143) Φ 11/?10 (PLATE 9)

L. 0.066.

Body sherd ?of SG cup, with part of horizontal RSH.

Brittle fabric and rough surfaces, as late shallow cups.

In streaky brown paint: stripes on handle; the handle root circled; one thin and one thick band at and below the level of the handle root; traces of other motifs to right (?swastika) and left.

Cf. (for loop handle on cup) Barber 1974, 38 no. 138 (MM112) and fig. 7, photo. Dawkins and Droop 1911, pl. x. (LC II).

Uncatalogued: 7 body sherds (3 with red interior coat, 1 of which may rather be Vafio type).

Shallow bowls

Flat topped rim with slight eversion; 2 loop handles rising above rim; bases flat or slightly concave; decoration on interior.

Atkinson *et al.* 1904, 110-13 Shapes 2-3.

Barber 1978, i. 182, ii. 42.

Barber 2007, 199 Shape 5 (bowls).

An essentially Melian type; some light-on-dark examples from Thera. The shape seems to go back to the early Middle Cycladic period (Atkinson *et al.* 1904, 260, in reference to early Curvilinear material in II-ii levels), an observation which accords with the frequent use of early Curvilinear motifs in its decoration and the high quality of the fabric of most pieces.

356 (148) Φ 11/2 (FIG. 20)

D. 0.18; H. 0.026.

Rim.

In brown paint: a band (not shown on drawing) just below the rim o/s; on top of and overlapping interior of rim, a wavy line.

357 (145) Φ 11/2 and 14 (FIG. 20)

D. c.o.19; H. (inc handle stump) 0.069.

Rim (2 fragments joining); one stump of a loop handle and one root survive on the rim.

In brown paint: a band just below the rim o/s; on top, bars; i/s a thick cc band 0.025 below the rim and, within the circular field, remains of spiral and ?monster.

Cf. Atkinson *et al.* 1904, 112 fig. 84, pl. xv. 18, 20.

358 (147) Φ 11/14 (FIG. 20)

D. ?; H. c.o.057.

Rim, with complete loop handle, oval in section.

Thick white slip a/o.

In brown paint: a band just below the rim o/s, also i/s on and below the rim with, pendent from this, a ?wavy line. The roots of the handle are ringed with paint, the lines merging with the rim decoration i/s.

For handle, cf. Atkinson *et al.* 1904, 110 fig. 77.**359** (149) Φ 11/2 (PLATE 9)

D. c.?o.18; H. o.o61.

Rim, with part of loop handle.

Handle as **358**.**360** (146) Φ 11/14 (FIG. 20; PLATE 9)

D. (of base) c.o.045; H. o.o27.

Base.

In brown paint: remains of a circle round the lower part of the interior and, within, parts of two discs, themselves outlined; above the circle, a zone of pointed ovals in outline.

Impressed: potmark, on the exterior, about o.o16 above the base—two (?or more) widely spaced oval dimples, cf. Atkinson *et al.* 1904, 110 fig. 79.

A pencilled number '16' on the outside of the of base is unlikely to be from the 1911 excavation.

*Flower vase*Atkinson *et al.* 1904, 118 Shape 8.

Barber 1974, 33-4 Flaring Bowl.

Barber 1978, i. 185-6, ii. 45.

Cf. **523** and **765**, the former not far from these in fabric.

These pieces should be dated to the end of the MC and early LC periods. An example from Thera has light-on-dark decoration.

363 (236) Φ 11/9 (FIG. 20; PLATE 9)

D. (of base) c.o.065; H. o.o51.

Base; flat, with complete small perforation (o.o04). WT.

In black paint: band round base; above, three curving lines, presumably of a clump of grasses, though the thick and strongly curving lines are unusual.

364 (235) Φ 11/9 (PLATE 9)

D. (of base) c.o.065; H. o.o44.

*Inturned-rim bowls*Atkinson *et al.* 1904, 143-5.

Barber 1974, 42-6, especially 251+ (MM144).

361 (644) Φ ?11/D (FIG. 20)

D. (base) o.o86; H. o.o45.

Base and part body (3 fragments joining).

LCW.

Well smoothed surfaces, ?self-slipped.

In blackish paint: i/s, multi-petalled rosette in centre of base; higher up, symmetrically placed bunches of thick grasses pointing downwards; o/s, immediately above base, possible trace of bunch of foliates.

Incised: potmark, on underside of base, near edge—three pricks, cf. Atkinson *et al.* 1904, 179 J3.

Cf. (for central rosette—unringed) *ibid.* 110 fig. 79 (shallow bowl); (for grass bunches) pls. xvii. 301 (thin), xix. 2a, xxvii. 2 (crude, thick, tall); closer is **589** (LL flat-rimmed jar).

362 (493) Φ 11/K (PLATE 9)

L. o.o65.

Body sherd.

In brown-black paint: i/s (from bottom of tondo), pointed ovals in coils of monster as Atkinson *et al.* 1904, 112 fig. 84, part of elaborate triangle, cc line, trace of further motif(s).

This piece must be from a composition very similar to the parallel cited.

Uncatalogued: 1 rim, 1 base, 1 handle, 16 body sherds (2 joining).

Base; flat, with part of small perforation (o.o04).

In black paint: band round base; rising from it, parts of three clumps of grasses.

Cf. Atkinson *et al.* 1904, pl. xix. 9, 10 (or pl. xxvii. 2, for decoration); Barber 1974, 33 no. 40 (MM94), fig. 6, photo. Dawkins and Droop 1911, pl. viii.

Uncatalogued: none.

Barber 1978, i. 187–8 Shape 8 *a–c*, ii. 47–8.

Barber 2007, 199 Shape 4 (Cycladic Bowl).

Sherratt 2000, 272.

In the past (including in both Atkinson *et al.* 1904 and Barber 1974) these bowls have been classified by shape rather than fabric and it is not possible to assess the frequency of finds in CW outside Melos. It is likely that inturned-rim bowls were in use throughout the currency of the CW fabric, although they do not seem common in this ware (Sherratt 2000, 272). One previously published piece (Barber 1974, 45 no. +251 (MM144) and fig. 9, pl. 7 *e*) is of fine quality.

With the exception of 371, and perhaps 372, the pieces here are likely to be late MC, possibly early LC.

365 (182) Φ 11/?10 (FIG. 20)

D. c.o.15; H. o.o34.

Rim, with almost complete spout; joins 366.

LCW.

?White slip o/s.

In brown paint: line just below carination (continuing under spout); tip of spout painted; on inturn, bracket pattern, continuing round spout.

Cf. Atkinson *et al.* 1904, pl. xxxiii. 17.

A pencilled mark '13' is unlikely to be from the 1911 excavation.

366 (625a) Φ 11/AK (FIG. 20)

D. c.o.15; H. (max.) o.o34.

Rim; joins 365.

367 (183) Φ 11/14 (FIG. 20)

D. c.o.145; H. o.o39.

Rim; joins 368.

LCW.

In brown paint: line on lip and just below carination; on inturn, bracket pattern.

368 (625b) Φ 11/AK (FIG. 20)

D. ?; H. (max.) o.o63.

Rim; joins 367.

LCW.

Well smoothed a/o; white slipped on rim.

In brown paint: line at lip and carination; on inturn, bracket pattern.

369 (643) Φ ?11/C (FIG. 20)

D. o.165; H. o.o55.

Rim.

Tool marks (slight horizontal grooves) at carination, similar to those on jug spout 418.

Apparently undecorated but possible traces of dark band at rim o/s and i/s.

370 (185) Φ 11/14 (PLATE 9)

D. c.o.13; H. o.o2.

Rim; broken just below carination.

In brown paint: line on lip; on inturn, bracket.

371 (184) Φ 11/14 (PLATE 9)

D. c.o.13; H. o.o39.

Rim.

Light buff.

In brown paint: line on carination and on lip; on inturn, bracket and spiral.

There is no good parallel for this combination of motifs in such a position. The form of the spiral suggests the piece may be relatively early.

372 (187) Φ 11/2 (PLATE 9)

D. c.o.14; H. o.o32.

Rim.

Buff throughout.

The surfaces very smooth.

In brown paint: line below carination and ?at lip; on inturn, simplified running spiral.

Cf. Barber 2007, 202 no. 108 and fig. 6. 7.

373 (186) Φ 11/14 (PLATE 9)

D. ?c.o.11; H. c.o.o5.

Rim of ?Cycladic bowl, with carination.

Buff surfaces.

The inturn o/s and the interior very smooth.

In brown paint: line on carination; on inturn, groups of three thick oblique lines, alternately inclined; trace of motif low on body, ?from band at foot as on Barber 1974, 45 no. –(MM27), fig. 9, pl. 7 *j*.

Cf. Atkinson *et al.* 1904, pl. xxxiii. 19.

374 (191) Φ 11/14 (FIG. 20)

D. c.o.14; H. o.o45.

Rim; concave lip.

In brown paint: line at carination and another below, also ?at lip; on inturn, rectangular panels of coarse crosshatch ?and blobs.

Cf. Atkinson *et al.* 1904, 144 fig. 121.

Uncatalogued: none.

Bowl with pinched spout

Atkinson *et al.* 1904, 145.

Barber 1974, 46 Type 9.

Barber 1978, i. 211, ii. 71–2.

Davis and Cherry 2007, 281 P844–5 and fig. 7. 9.

The fabric of these vessels has been classed as LCW but it is far removed from the better examples of that category, being brittle, 'clinky', and rough to the touch. In these respects it resembles the fabric of the later variety of shallow cups (cf. 341 etc., above). The decoration is careless.

All examples so far listed are Melian. Several have contexts, none of which are earlier than III-i. The form belongs to LC I-II and may begin relatively late in LC I.

375 (305) Φ 11/14 (PLATE 9)

D. irregular; H. 0.055.

Rim (5 fragments joining), with pinched spout (partly broken).

Coated i/s in very streaky black.

In black paint: line on top of and on outer edge of rim and on carination; above this line, crosshatch; below, wavy line.

Cf. Barber 1974, 46 no. 92 (MM31), fig. 9, pl. 7 k.

376 (109 (MM378)) (PLATE 9)

D. roughly oval; H. 0.075.

Complete profile (6 joining fragments) including part of rim and spout.

In black paint: crosshatch on rim, with band below; then, crude wavy line; band at foot; cross underneath.

'109' is not mentioned in PCD, only in the list of find-spots (H. 4. 22. 97. 71–53). This context was identified (Barber 1974, 14) as III-ii (LC II).

Uncatalogued: 9 rims (some joined), 4 body sherds.

*Bowl?***377** (501) Φ 11/18 (FIG. 20)

D. c.0.21; H. 0.038.

Rim; tall, fairly upright, everted, slightly concave lip.

In rather streaky black paint: thick band on eversion o/s and, pendent from it, diagonal lines with thick dots between.

No parallels identified.

Uncatalogued: none.

*Bases (various)***378** (115) Φ 11/14 (PLATE 10)

D. (of base) c.0.045; H. 0.029.

Base (more than half) of open vessel (the inside very smooth); raised, slightly concave.

In brownish paint: band above base; rising from this a zone of coarse pointed ovals.

The decoration, which is early Curvilinear in character, is hard to parallel on the exterior of an open shape.

379 (579) Φ 11/19 (FIG. 20)

D. (base) 0.07; H. 0.03.

Base (less than half) of ?open vessel; ringed, concave underneath.

Possible traces of dark coat i/s.

In black paint: band in foot/body junction with, above, thick cc band.

Cf. Zervos 1957, pls. 285–6 (jug)

Incised: potmark, underneath, more or less central, near the break—a row of 3 pricks, cf. Atkinson *et al.* 1904, 179 J3.

A pencilled number '12' is unlikely to be from the 1911 excavation.

380 (114) Φ 11/?10 (PLATE 10)

D. (of base) c.0.06; H. 0.024.

Base (about half) of ?bowl; flat, very slightly concave.

Remains of a dark coat i/s.

Smoothed a/o and ?self-slipped.

In brownish paint: band at base; on the underside, a crude wavy line/zigzag apparently ran from one side of the base to the other.

Cf. 381, also, for a similar under-base pattern, Atkinson *et al.* 1904, pl. xxvi. 7 (LL SG cup).

381 (170) Φ 11/?10 (FIG. 20)

D. (of base) ?c.o.o7; H. o.o52.

Fragment of wall and small part of base of open vessel (probably a similar shape to **380**).

Coated dark red i/s.

In brownish paint: three widely separated cc bands; trace of another (curvilinear) motif above the uppermost band.

?Stemmed bowl or goblet

382 (389) Φ 11/2 (FIG. 21)

D. (of base) o.o75; H. o.o44.

Stem; short, the lower part hollow underneath; flat, spreading base; the bottom of the interior of the bowl is preserved only at the top of the stem where the rest is broken off.

In brown-blackish paint: underneath, a cross whose arms are filled with concentric 'set squares'; on the edge of the foot, stripes; on the exterior, cc bands and intervening zones of linear decoration; at the edge of the foot, foliates, then (successively) wavy line (at the foot/stem junction) dots, wavy line, two zones of dots.

Basin

See **533** etc. (LL) ('Open Bowls, Basins and Baths (with decorated interiors)', also Barber 2007, 201 Shapes 9, 10.

There are plenty of large open vessels, some with relatively crude interior decoration, which provide general parallels. The rim form is similar to that of some pithoi/pithoid jars (cf. **406**; Sherratt 2000, 292, 13.b.i.397 and fig. 213, pl. 478) but the angle of inclination and the decorated interior indicates the shape. Also close is the vessel illustrated in Atkinson *et al.* 1904, 140 fig. 112 (the profile not fully shown), which has the same rim-side decoration as **384**. Cummer and Schofield 1984, 79 no. 670 and pl. 59, from the Period VII destruction, is referred to the Phylakopi piece, though both have more sophisticated decoration than our examples. Davis 1986, 60 AA-90 and pls. 33, 63 (LL) is similar to ours in decoration but has a different rim.

No sound evidence for distribution or chronology but perhaps late MC to early LC.

383 (481) Φ 11/22 (FIG. 21)

D. very large, probably oval; H. o.107.

Rim; the rim square sectioned.

CCW, similar to Plain Ware.

Smoothed a/o.

In streaky blackish paint: wavy line on top of rim; thick band inside at rim; below, bit of ?spiral.

Cf. Atkinson *et al.* 1904, 140 fig. 112, pl. xxx. 2.

384 (482) Φ 11/22 (FIG. 21)

D. very large, probably oval; H. c.o.o77.

Rim.

CCW, as **383**.

Smoothed a/o.

The scheme is as Zervos 1957, pl. 270 (jug) but the base of **381** is flat.

Uncatalogued: none.

Davis 1986, 55 AA-13 and pls. 32, 60 may be somewhat similar in shape, though different in fabric and decoration; the dot-filled zones are recalled in Goldman 1931, pl. xv. 2, with p. 159.

An unusual form whose decoration appears to resemble the 'Close' style of LC II Possibly imported.

Uncatalogued: none.

In streaky blackish paint: thick wavy line on top and outside of rim; i/s thick band at rim; below, bit of ?spiral.

385 (704) Φ ?11/A (PLATE 10)

D. ?; H. o.o74.

Rim; thick and rectangular in section.

Thick wavy line on top and on o/s of rim; i/s, thick band at rim and wavy line below.

Cf. Sherratt 2000, 292, 13.b.i.397 and fig. 213, pl. 478.

Uncatalogued: none.

Lids

Atkinson *et al.* 1904, 169 and pl. xviii. 21.

Barber 1978, i. 186, ii. 46.

The two forms represented are quite different. It is hard to find parallels for lids in this fabric. Clutching at straws, one might suggest an association with the type of *?pyxis*, here assigned to LC II (557).

(a)

386 (180) Φ 11/2 (FIG. 21)

D. *?c.o.o78*; H. 0.02.

Part of lid, with central knob; the knob a hollow inverted cone, with bevelled lip.

The biscuit and interior partly slate-grey; the exterior buff.

(b)

388 (390) Φ 11/15 (FIG. 21)

D. 0.085; H. 0.025.

?lid; 'stepped'.

CW or LL.

In reddish and brownish paint: on top, foliates radiating, presumably from a central motif; edge of top 'step' painted; zone of dots; angle and top of next 'step' painted, then broken.

387 (405) Φ 11/2 (PLATE 10)

D. *?*; L. 0.042.

Fragment of lid, probably as **386**; one perforation survives.

In brown paint: line, diverging to follow edge of perforation.

The closest associations of foliate and dotted zones are found on the LL cups of LC II, cf. Barber 1974, 38 nos. 143 (MM131), 188 (MM228), photos. Dawkins and Droop 1911, pl. x.

Uncatalogued (*a + b*): none.

Pyxis

Barber 1974, 34.

Barber 1978, i. 186, ii. 46.

Barber 2007, 202 Shape 13 (jar).

Rare. No listed examples from outside Melos. Perhaps both early and later MC.

389 (155) Φ 11/2 (FIG. 21)

D. *?*; H. *c.o.o46*.

Body sherd from just below rim of small closed vase (*?pyxis*).

In brown paint: line at rim o/s; below at right two vertical lines *?form* edge of panel; to left, a complex motif, apparently formed of two elements (*?elaborate triangle(s)*) filled with crescents, linked *?by* a small open circle.

Cf. Barber 1974, 34 no. 185 (MM109) and fig. 6, photo. Dawkins and Droop 1911, pl. xiii. (shape); Atkinson *et al.* 1904, pls. xviii. 14, xiv. 3, 9 etc.

390 (552) Φ 11/*?10* (FIG. 21)

D. (at widest point) *c.o.115*; H. 0.042.

Body sherd of vessel similar to **389**; orientation uncertain.

Light buff.

In faded brown-black paint (hard to decipher): cc line just above/below carination with, above, thick wavy lines; below this, a zone with part of isolated curvilinear motif (at left); below again, debased squiggly bracket (as Atkinson *et al.* 1904, pl. xvii. 11 *a*, below the spiral).

The wavy line decoration is not dissimilar to that on larger CW bowls from the recent excavations (Barber 2007, 201 nos. 98, 102 and fig. 6. 6).

Uncatalogued: none.

Bridge-spouted jars

There is a good deal of variation in the detail of the rim form. Rims usually terminate with a short upright section which is often flattened on top.

Atkinson *et al.* 1904, 116–17 Shape 6, 119 Shape 5.
 Barber 1978, i. 185, 191, ii. 45, 50.
 Barber 2007, 202 Shape 12.

The BSJ was probably in use at Phylakopi throughout the MC period and during LC I–II. Closer estimates of the dates of individual pieces must be based on their decoration. The form is common in LL fabric but it is unclear how many of the finds from other sites are CW (Davis 1986, 28 G–4 and pl. 23, with ‘very pale brown fabric’ is attributed to Melos). Most of these CW examples from Phylakopi may be late MC.

391 (175) Φ 11/2 (FIG. 22)

D. ?c.o.15; H. o.o19.

Rim.

In brown paint and ?‘sparse’ style: line on top of rim; cc line below rim o/s and trace of another below right—this zone divided by a vertical line. In left panel, pendent from the top line, is a circled dot; in right panel, trace of another motif.

For circled dot cf. Atkinson *et al.* 1904, pl. xv. 5; for panels and sparse decoration *ibid.* pl. xviii. 24, 25 and, below, 477 etc.

392 (142) Φ 11/2 (FIG. 22)

D. (of opening) c.o.09; H. o.o31.

Rim.

Dark buff—far from normal CW.

In brown paint: the inner and outer edges of the top of the rim apparently outlined; in between the lines, a long (o.o18) rectangular bar; on shoulder, a horizontal row of small crude discs and, below, bracket pattern.

Cf. Barber 2007, 209 no. 171 and fig. 6. 8 (LL), for discs.

393 (139) Φ 11/2 (FIG. 22)

D. (of opening) c.o.09; H. o.o53.

Rim (2 fragments joining); the vessel high-shouldered; mouth much narrower than maximum diameter of body.

In brown paint: spots on top of rim; band at rim/body junction; body covered with repeated motif of circles with two half-discs attached to opposite sides of inner circumference.

Cf. Barber 2007, 205 no. 127 and pl. 25 *e*. Atkinson *et al.* 1904 contains no exact parallel but the following are all related: pls. xv. 2, 3, xviii. 2, 20–1; also Marinatos 1968–76, iv, pls. 66 *a*, 77 *a*.

394 (81) Φ 11/?10 and 2 (FIG. 22)

D. c.o.18; H. o.o38.

Rim (2 fragments joining).

White-yellow slip o/s.

In brownish paint: line at lip; two lines below with pendent loops/wavy line; trace of another motif below.

Seems to be in the thin linear ‘sparse’ style of **391**;

for rim decoration, cf. Sherratt 2000, 261, 13.b.i.220 and fig. 172 *d*, pl. 378.

395 (240) Φ 11/16 (FIG. 22)

D. c.o.12; H. o.o41.

Rim; slight roughness inside.

Buff; borderline LL.

In B&R: ?the rim painted; thick hooks pendent below; on the body, red circle(s) with radiating oval foliates.

Cf. Atkinson *et al.* 1904, pl. xx. 13.

396 (141) Φ 11/2 (FIG. 22)

D. (of opening) c.o.09; H. o.o25.

Rim; at the right hand break, on top of the rim, is the beginning of the spring of a vertical loop handle.

In brown paint: line on top of rim extending o.o23 m from handle spring; band at rim body junction; on shoulder, spirals.

397 (716) Φ ?11/C (FIG. 22)

D. c.o.21; H. o.o82 (with handle, o.119)

Rim, with complete horizontal RS loop handle.

Not standard CW fabric; yellowish, with dark grits which also show in the roughly smoothed surface.

In dark paint: traces of band underneath rim i/s, with some drips down into lower interior.

Cf. 572, 573, 574 (LL), for shape.

398 (166) Φ 11/?10 (PLATE 10)

H. (inc. handle) c.o.104.

Rim of large BSJ (perhaps jug), with flat-sectioned basket handle rising from immediately above spout. The top of the spout broken; the handle smoothed. In brownish paint: the top of the handle painted; an eye (dot in circle) to either side of the spout; a chain of discs below the eyes.

For BSJs with basket handle cf. Atkinson *et al.* 1904, 119 Shape 5 and fig. 91; also *ibid.* 116 Shape 6; for eyes on horizontal spout (of jug) cf. Marinatos 1968–76, iv, pl. 77 *a*; for discs (round neck of jug), cf. Atkinson *et al.* 1904, pl. xxi. 1.

399 (168) Φ 11/?10 (PLATE 10)

D. ?; H. c.o.o48.

Rim of BSJ (?or jug) with spout and (probably) handle as **398**; the end of the spout cut away at each side.

The surfaces pale, but the biscuit close to LL.

In brownish paint: trace of paint on or o/s the rim; an eye (dot in circle) to either side of the spout; the cutaway surfaces of the spout painted; traces of a chain of discs below the eyes; trace of motif (?wavy line) at spout/body junction.

Cf. **398**.

400 (167) Φ 11/2 (PLATE 10)

H. c.o.054.

Rim of large BSJ (?or jug), probably with spout and handle as **398**.

In brownish paint: paint on and below the rim; an

Flat-rimmed jar

The term is Sherratt's (2000, 253), and cf. her nos. 13.b.i.158–9 and figs. 169, 170 c, pls. 360, 361.

Atkinson *et al.* 1904, 119 Shape 7.

Barber 1978, i. 191 ('pyxis'), ii. 50.

None listed outside Melos. Late MC.

402 (82) Φ 11/?10 (FIG. 22)

D. c.o.12; H. o.o26.

Rim; the rim wide and flat.

?Pale self-slip o/s.

In brown-black paint: on top of rim, between lines, rough continuous concentric arcs, overlapping onto outside; oval spot on lower edge of rim o/s; on body, thick wavy line (?); slight trace of another motif below.

403 (140) Φ 11/2 (PLATE 10)

D. (of opening) c.o.12; H. o.o25.

Rim; almost certainly part of the same vase as **402**.

Closing jar or bowl

405 (53) Φ 11/12 (FIG. 22)

D. o.o14; H. o.o69.

Rim of jar with relatively narrow mouth, possibly spouted.

Probably CCW.

In brownish-black paint (very indistinct): ?cc bands, perhaps curvilinear elements.

Pithos

Atkinson *et al.* 1904, 139 Shape 23 (LL).

Barber 1974, 39 (LL).

Barber 1978, i. 205, ii. 64–5 (LL).

Early LC. There are comparable pieces from Kea and, especially, Thera.

eye (dot in circle) to either side of the spout; traces of ?bracket pattern ringing the spout.

401 (578) Φ 11/?10 (FIG. 22)

D. (base) o.o36; H. o.o26.

Base (uneven) of small closed vessel, perhaps BSJ.

In black paint: above base, zone of discs; above, parts of curvilinear motif(s), one with a protrusion. Cf. Atkinson *et al.* 1904, pl. xvii. 29: discs, apparently near base; discs also common on LL SG cups (cf. Barber 1974, 38 no. 84 (MM75), photo. Dawkins and Droop 1911, pl. x), though usually in a defined zone.

Uncatalogued: 2 spout fragments.

Uncatalogued: 1 spout of BSJ with linear decoration.

In brown paint: rim decoration as **403**; on upper body, part of thick wavy line.

404 (–(MM395)) (FIG. 22)

D. o.o115; H. o.o33.

Rim.

In black: on top of rim, bracket pattern; on shoulder, bird(s) and other creatures or ?spirals (cf. Atkinson *et al.* 1904, 121 fig. 93, for such a combination).

Cf. (for bird) *ibid.* pl. xxi. 13; also **415**.

Uncatalogued: none.

Perhaps related to Barber 2007, 201 nos. 99–101 and fig. 6. 6, pl. 25 b.

Late MC/early LC.

Uncatalogued: none.

406 (621) Φ 11/AK (FIG. 23)

D. c.0.35; H. 0.045.

Rim; the rim square sectioned.

Fabric close to Plain Ware.

White slip on top of rim and all over o/s.

In blackish paint: foliates on top and side of rim; band in rim/body junction; below, ?

Cf. (for rim form) **383** (basin).**407** (702) Φ ?11/D (PLATE 10)

D. c.0.35; H. 0.085.

Rim (2 fragments joining).

In black paint: thick wavy line on top and outside edge of rim; below rim o/s, thick band.

*Amphora***409** (135) Φ 11/2 (FIG. 23)

D. c.0.017; H. 0.061.

Rim fragment; the lip rolled.

In brown paint: band inside lip; another o/s, at the neck/body junction.

Perhaps from an amphora similar to Overbeck

408 (Unnumbered) Φ 11/AK (PLATE 10)

D. (base) 0.103; H. 0.093.

Fragment including whole base of large pithos or jar.

CCW, greyish with white grits; creamy slip o/s.

In streaky black paint: band in foot/body junction; above, crude wavy line/zigzag; then another band and traces of decoration in zone above; some paint splashes.

Uncatalogued: none.

1989b, 60 X-32 a and pl. 47 (MH matt-painted, Phase IVb); cf. also Barber 2007, 228 (-30) and fig. 6. 16 especially nos. 347-8 (Coarse).

The most likely date of this piece is earlier MC.

Uncatalogued: none.

Feeding bottle

The form, not previously recognized at Phylakopi, is defined by a nearly complete example (with B&R decoration) from Kea, Grave 8 (see **410** for references). It has a globular form and a side spout. The neck is short, the mouth disc-shaped with a small orifice. There is a single strap handle from rim to shoulder.

The fabric of these pieces, and the contexts on Kea, suggest an early MC date.

410 (133) Φ 11/?10 (FIG. 23)

D. (of top) c.0.053; (of orifice at outer) 0.013; H. 0.038.

Part of mouth and neck; small stump of strap handle survives at rim.

Hard fired; pale buff like the lid **386**.

In dark paint on surface of mouth: three groups of three concentric arcs, the inner of each forming a rough triangle round the orifice.

As Overbeck 1989b, 191 Grave 8-3, pl. 92 (Phase IVb or c); also 79 AH-28, pl. 53 (Phase IVc).

411 (134) Φ 11/?10 (PLATE 10)

D. (of top) c.0.042; (of orifice at outer) 0.016; H. 0.034.

Part of mouth and neck; one side of the rim is lost and the whole surface is worn.

In dark paint: a band round the base of the neck.

Uncatalogued: none.

*Beaked jugs*Atkinson *et al.* 1904, 108-10 Shape 1, 119 Shapes 2 and 3.

Barber 1974, 31, 34?

Barber 1978, i. 180-2, ii. 41-2, also (B&R) i. 190 (Shape 2), ii. 49.

Barber 2007, 204.

The earlier history of the beaked jug, so prominent in the history of Cycladic ceramics, has already been remarked (MP **107** etc.).

The spout form is distinctive. The leaf-shaped mouth, found in earlier beaked jugs (EC III A-B) is no longer evident in CW examples, where the long-channelled and distinctively flanged spout, often flaring towards the end, seems to be the earlier form. It is also found unflanged (**419**). Other varieties include the small hour-

glass (in plan) type, sharply cut away towards the tip (417); the long uniform channel, also cut away but with a long extension after the 'cut' (418). Short, unflanged examples are also found. Shorter spouts with pointed tip (Atkinson *et al.* 1904, 125–6 and pl. xxiii. 5) may be a later development.

The cutaway spouts should not be confused with the class of late MC/early LC jugs with full cutaway mouth (cf. Atkinson *et al.* 1904, 125 and pl. xxiii. 1, 3, 4).

Jugs may have the zonal decoration characteristic of the early Curvilinear style, or freer compositions utilizing the naturalistic motifs of the later stage. Some of the zonal motifs (crosshatch, discs, wavy line) are shared with the later (SMP) variety of Geometric pottery.

The desirability of a detailed study of Cycladic beaked jugs has already been mentioned. Two specific points of interest which arise from this material are (a) the possibility of links between the decoration of these jugs and the SMP style and (b) the introduction, form and development of plastic nipples, surrounded by dots, circles, or both together.

The beaked jug is more widely distributed within the islands than any other CW form (Amorgos, Delos, Kea, Melos, Naxos, Siphnos, Tenos) and there are pieces from both MM and MH contexts. Several are reliably dated to the earlier MC period but it is possible to identify earlier and later elements of shape and decoration (see above).

412 (–(MM457)) (PLATE 10)

H. o.146.

Spout and upper body (2 joining fragments); handle roots at rim and on shoulder; the tip of the spout broken and the handle itself missing; the spout probably hour-glass shape.

In black/purplish paint: the rim of the spout painted on top; 3 cc bands round neck with, below, a 4-dot rosette and 2 side-set pointed ovals with dotted centres; the lower handle root outlined.

Cf. Zervos 1957, pls. 268–9, also pl. 280, for similar motifs in combination on a closely related shape.

413 (144a/b) Φ 11/2 (FIG. 23; PLATE 10)

D. c.o.09; H. c. o.047 and o.033.

Rim; 2 fragments, not joining but perhaps from the same vase.

The inside of the neck smooth; a ridge at the opening into the interior of the vase, after which the surface is rough.

In brown paint: semicircles/wavy line pendent from line at rim i/s and o/s (those inside are linked); on the shoulder, a zone of open circles and solid discs. The clearest shape parallel is with an EMP beaked jug illustrated by Sherratt (2000, 226, 13.b.i.18b and fig. 131, pl. 275b); for the motif cf. *ibid.* 247, 13.b.i.111 and fig. 163, pl. 339; see also 418, below, for wavy line pendent from spout.

414 (573) Φ 11/?10 (FIG. 23)

H. c.o.04.

Fragment of neck and upper body.

LCW.

In black paint: at neck, trace of a cc band with pendent bracket; below, in field, parts of 2 (presumably repeated all round) open circles with

solid discs attached to the circumferences, the whole forming a kind of rosette.

Cf. Zervos 1957, pl. 281, where the circular motif is somewhat simplified; also Atkinson *et al.* 1904, pl. xviii. 4.

415 (–(MM459)) (PLATE 10)

L. o.067.

Body sherd, probably from near neck of beaked jug.

Buff.

In B&R: bit of lower part of red band from neck or upper shoulder, including its lower outline; then (all black), zone of simple running spirals with, in the field, the head and part of upper outline of a bird.

Cf. (for bird type) 404, and Atkinson *et al.* 1904, 119–20.

The upper part of the decorative scheme here could be a combination of Atkinson *et al.* 1904, pls. xx. 2 and xxi. 14.

416 (179) Φ 11/14 (PLATE 10)

H. c.o.077.

Body sherd from neck of beaked jug; one plastic nipple survives.

In brown paint: the nipple painted (?except for the tip) and circled with a line—trace of the circle round ?a second to the right; above, parts of 2 cc bands.

The beaked jugs on Atkinson *et al.* 1904, pl. xiv have nipples circled, but with dots rather than lines, as at Akrotiri (Marinatos 1968–76, iv, pl. 71). Sherratt 2000, 248–9, 13.b.i.121 and fig. 164, pl. 345 show both linear and dotted circles, while 13.b.i.120 (pl. 344) has nipples painted and circled with dots.

Spouts

Decoration: the upper rim surfaces of the spout are usually painted. There is often a horizontal line (sometimes a series of lines) looped under the spout just before its end. The root of the spout may be outlined in paint. Painted eyes to either side are common. Also found are wavy lines below the rim.

417 (110) Φ 11/2 (PLATE 10)

L. o.044.

Sherd of spout of small jug; hourglass form; the spout flanged, cut away at the tip, pointed.

In brownish paint: the upper surfaces of the rim, including the cutaway section, painted; a thick horizontal line on the underside reaches right to the tip.

Cf. Zervos 1957, pls. 285–6; Marinatos 1968–76, iv, pl. 71 right.

418 (111) Φ 11/2 (PLATE 10)

L. o.087.

Sherd of spout; the rim surfaces defective; long narrow channel, cut away towards tip.

The underside is slightly corrugated, as if worked with a tool, perhaps for burnishing (cf. **369**).

In brownish paint: the upper surfaces of the rim, including the cutaway section, painted; a wavy line pendent from the rim on either side.

419 (108) Φ 11/2 (PLATE 10)

L. (of spout) o.083.

Sherd of spout of large jug; long channel, flaring markedly at the end; the end of the spout defective and much of the right hand side missing.

In black-brown: the upper surfaces of the rim and outer surface of the end of the spout painted; a thick horizontal line beneath the end; an eye (circled dot) survives on the left hand side, near the point where the spout has broken off from the body; a vertical dribble connects this to the rim line.

Jug with neck-ring

For the neck-ring, which seems to span early MC to early LC, see Barber 2007, 230 (Coarse Shape 23). No parallels in CW fabric have been located.

422 (171) Φ 11/?10 (FIG. 23; PLATE 10)

D. (of ring) c.o.08; H. o.032.

Neck-ring from shoulder of jug.

In brownish paint: painted all over, with narrow reserved bands (not shown on drawing) on i/s and o/s of ring.

Cf. Atkinson *et al.* 1904, pl. xiv. 4 (restored); Barber 1974, 31 no. 173 (MM142) and fig. 6, photo. Dawkins and Droop 1911, pl. xiii.

A pencilled mark '12' is unlikely to be from the 1911 excavation.

420 (165) Φ 11/2 (PLATE 10)

L. (from exterior of handle stump to tip of spout) o.059.

Spout, with stump of oval-sectioned handle on rim; channel narrows towards tip, which is broken and its exact form unclear; otherwise complete.

CCW.

The upper surfaces of the rim may have been painted; in faded dark paint: eyes (circled dots) on either side, just forward of the handle.

Cf. Sherratt 2000, 253, 13.b.i.157 and pl. 359; perhaps also Atkinson *et al.* 1904, pl. xiv. 8.

421 (109) Φ 11/2 (PLATE 10)

L. (from exterior of handle stump to tip of spout) o.096.

Spout, with handle root area visible; long channel, narrowing slightly towards end; the tip defective.

In black-brown paint: the upper surfaces of the rim and the root of the handle originally painted; a horizontal line beneath the spout near its end; eyes (circled dots) on either side, just forward of the handle.

Cf. (for eyes) Sherratt 2000, 247, 13.b.i.111 and fig. 163, pl. 339.

Uncatalogued spout fragments: 7.

Cf. Barber 1974, 40 no. 238 (MM404) and fig. 7, pl. 6 c–d.

Atkinson *et al.* 1904, 136 Shape 15 (LL), a more specialized form, also displays this feature.

Uncatalogued: none.

Bases

Most of these may belong to jugs. Only **425**, **429** are flat, the rest ringed.

423 (116) Φ 11/2 (PLATE 11)

D. (of base) c.o.065; H. 0.053.

Part of base; ringed, slightly concave underneath.

In brownish paint: band at body/base junction; two more higher on body.

Cf. Zervos 1957, pls. 281–3.

424 (120) Φ 11/2 (PLATE 11)

D. (of base) c.o.075; H. 0.034.

About half of base; ringed, concave underneath.

In brownish and red paint: double vertical lines define both edges of a panel; horizontal line below, plus another, thicker, in the concavity at the foot. Within the panel at one side is part of a spiral; on underside of base, traces of a thick red 'H'.

For jug decoration, apparently in a panel (and with spirals), cf. **427**, with references.

425 (415) Φ 11/16 (PLATE 11)

D. (of base) c.o.075; H. 0.038.

About one third of base; spreading, flat underneath.

In B&R (matt black and ?burnished red paint): on the edge of the base, wavy line; above, parts of curvilinear motifs, one of which has a red centre.

Cf. Atkinson *et al.* 1904, pl. xx. 15 (B&R) which has wavy line, and perhaps also the other motif(s) seen here.

426 (580) Φ 11/?10 (FIG. 23; PLATE 11)

D. (base) 0.06; H. 0.035.

About half of base of closed vessel, probably a jug; ringed, flat underneath.

In black paint: cc band in foot/body junction; well above, trace of another cc band.

Impressed: potmark (not shown on the drawing), between the bands—two oval dimples widely (0.011) spaced and set just off the vertical, cf. the Atkinson *et al.* 1904, 179 J6–11 series, but the marks on **426**, which could be part of a more extensive group, are much more widely spaced.

Cf. Zervos 1957, pl. 270 for banding.

427 (119) Φ 11/?10 (PLATE 11)

D. (of base) c.o.07; H. 0.043.

Handle

430 (169) Φ 11/2 (FIG. 23)

L. 0.073.

Handle from ?; broad, flat; orientation uncertain.

In brown paint: group of three narrow stripes on under(?)side; another three survive on (?)upper.

About half of base; ringed, concave underneath.

In brownish paint: band in body/foot angle; trace of edge of panel and part of a spiral within.

In spite of the panel decoration, this seems too large to belong to a panelled cup.

For jug decoration in a panel cf. Barber 1974, 34 no. –(MM372), pl. 4 c (Barber 1978, i. 189, ii. 49), but there the panel is on the belly and does not reach down to the foot.

428 (285) Φ 11/18 (FIG. 23; PLATE 11)

D. (of base) c.o.07; H. 0.039.

About half of base of large vase; flat but very slightly concave underneath.

In reddish paint: a group of three stripes rising from the foot; also (not illustrated), underneath, very faint: a cross consisting of two pairs of parallel lines, similar to the stripes on the body.

Impressed: potmark, o/s, just above the base—one dimple survives.

Such groups of stripes are most easily paralleled on MP vases (cf. Atkinson *et al.* 1904, pl. ix. 10; Barber 1974, 24 no. 5 (MM121) and pl. 1 a).

428 may be early MC or even earlier.

A pencilled mark '29' on the interior is unlikely to be from the 1911 excavation.

429 (113) Φ 11/2 (PLATE 11)

D. (of base) c.o.075; H. 0.054.

About one third of base; flat, perhaps of open vessel since the inner surface, although pitted, is even.

Buff interior.

Smoothed and ?self-slipped o/s.

In brownish paint: band at base; above (attached), part of coarse ?wavy line, rising from which are two pairs of roughly parallel lines beginning to loop upwards.

Cf. Zervos 1957, pls. 306–7 for an approximate parallel. Thick wavy lines in this position are more common in the LC period, to which this piece probably belongs.

Uncatalogued: 2.

Two further line the handle/body junction and three more join these to form an oval. The overall scheme unclear.

Impressed: potmark (right to left, not shown on drawing), apparently all in a line on the inner side

of the three narrow stripes—two oval depressions with a third slightly separated. There could have been a further depression beyond the break.

Quite similar to the sparse linear style, particularly associated with imported MH Matt-painted kantharoi.

Cf. Siedentopf 1991, nos. 628, pl. 102, 734, pl. 113, 747, pl. 115 (Stadt VII–VIII, IX).

Perhaps an import from Aigina.

Uncatalogued: 1 ?jug handle (oval/strap) with wavy line on o/s.

Other uncatalogued CW sherds: 4.

Decorated sherds

A few rim sherds are included in this section.

The decoration of Cycladic White pottery was discussed by Furumark (1941, 220–2) under the heading Curvilinear Style (in contrast to the preceding Geometric), which he divided into an earlier and a later phase. Scholes 1956 (18–21) retained the name Curvilinear for the former, while calling the latter ‘Naturalistic’. The two styles are characteristic of the middle and later Second City (II-ii, II-iii = MC early and late), respectively, the latter continuing into the Third. Furumark saw the strongest connections of the early Curvilinear Style as being with MM II B, of the later with MM III.

While there is a clear distinction between the decorative elements of the earlier Curvilinear style, found almost exclusively on CW fabric, and those of LL, the same is not true of the later, when there are also often problems in distinguishing between CW and LL fabrics. This difficulty is exemplified by pieces decorated in the B&R style, which is found on such intermediate fabric as well as on material which is clearly either CW or LL.

Further attention could profitably be paid both to the distinction of fabrics and to a more detailed analysis of motifs.

‘Bird’s head’

The motif consists of a spiked circular or oval appendage, usually to spirals. It may be open or solid painted. It is not uncommon in later CW decoration.

Cf. Atkinson *et al.* 1904, pl. xvii. 14, 13; also CW 321.

431 (499) Φ11/18 (PLATE 11)

Body sherd ?of panelled cup: buff; ‘bird’s head’, part of ?spiral.

432 (738) Φ11/?10 (PLATE 11)

Rim of panelled cup: bracket at rim, part spiral with ‘bird’s head’ projection, side of panel.

Note also in shape catalogue 320–1.

Uncatalogued: none.

Linked S-band

The motif takes the form of a series of linked S-shapes (cf. Atkinson *et al.* 1904, pl. xvii. 4, 5). In a distinctive variant (cf. Atkinson *et al.* 1904, pl. xvii. 8), one segment of each S is painted in to form a series of bud-like elements.

433 (742) Φ11/?10 (PLATE 11)

?Rim (2 fragments joining) of panelled cup: right hand side of panel; within, bracket at rim; below, parallel bands of S-band (or bracket with S-shaped terminals).

434 (743) Φ11/?10 (PLATE 11)

Body sherd ?of panelled cup: thick S-band.

435 (744) Φ11/?10 (PLATE 11)

Body sherd ?of panelled cup: dark buff; S-band with ‘buds’.

Uncatalogued: none.

Abstract zonal motifs (pointed ovals, discs, open circles, crescents, quirk)

These elements, often found in combination, are characteristic of the early Curvilinear style (cf. Atkinson *et al.* 1904, pls. xiv, xv). Open circles are not well represented in the Atkinson *et al.* 1904 plates but are quite common in the sherd material.

436 (745) $\Phi_{11/14}$ (PLATE 11)

Body sherd of small closed vessel: 2 cc bands, zone of connected pointed ovals with central dots, another cc band.

437 (746) $\Phi_{11/14}$ (PLATE 11)

Body sherd of closed vessel: cc band, zone of connected pointed ovals, cc band, zone of running quirk.

438 (747) $\Phi_{11/14}$ (PLATE 11)

Body sherds (2 joining) from near neck of jug: cc band, zone of pointed ovals with alternating open semicircles attached to the lower cc band, cc band, running quirk.

439 (748) $\Phi_{11/19}$ (PLATE 11)

Body sherds (3 joining) from ?jug: zone of tall pointed ovals, cc band, zone of running quirk, bit of cc band.

440 (749) $\Phi_{11/14}$ (PLATE 11)

Body sherds (2 joining), from shoulder of ?jug: zone of discs, 2 cc bands, zone of open circles, trace of cc band.

*Foliate*s

The point of distinction between foliates and crescents is not always clear. The latter are common, especially in the early Curvilinear style, when foliates are less so and, when found, rather crude (Atkinson *et al.* 1904, 113 fig. 86). Foliate s seem most often to resemble those on cups of early LL fabric which are attributable to late MC (Barber 2007, 207 and fig. 6, 8, nos. 159, 160 (LL)).

443 (762) $\Phi_{11/16}$ (PLATE 11)

Body sherd, probably of semiglobular cup: WT; foliate s (or crescent s) between thick streaky cc bands.

444 (763) $\Phi_{11/16}$ (PLATE 11)

Body sherd of ?; ?WT: below 3 cc bands (one very thick), foliate s (or crescent s).

445 (764) $\Phi_{11/2}$ (PLATE 11)

Body sherd of shallow cup: ?the interior coated; zone of double pear-shaped foliate s in chevron form between two cc bands; trace of another motif zone above.

441 (784) $\Phi_{11} ?/?$ (PLATE 11)

Body sherd of ?open vessel: zone s of disc s and running quirk, defined by cc bands (2 survive). Although the decoration best suits identification as a jug, the interior is smooth.

442 (750) $\Phi_{11/2}$ (PLATE 11)

Body sherd of small closed vessel: cc band, zone of crescent s, cc band, zone of disc s, cc band, ?trace of another crescent zone.

Note also in shape catalogue: pointed ovals: **335**, **360**, **362**, **378**, **412**—not zonal; disc s (or blob s) and dot s: chain s/zone s—**382**, **388**, **392**, **398**, **399**, **401**; single or widely spaced—**327**, **341**, **360**, **374?**, **377**; open circle s: **334**, **360**, **413**.

Uncatalogued: 22.

446 (765) $\Phi_{11/3}$ (PLATE 11)

Body sherd of SG cup, with handle stump: zone of foliate s (or crescent s) between thick streaky cc bands, of which the upper crosses the handle stump.

Note also in shape catalogue **327?**, **353**, **382**, **388**, **406**.

Uncatalogued: 1.

Elaborate triangle

A distinctive early Curvilinear motif (cf. Atkinson *et al.* 1904, pl. xiv. 5, 8).

447 (751) $\Phi_{11}/?_{10}$ (1), $\Phi_{11}/2$ (3) (PLATE 12)

Body sherds (4 joining) from shoulder of ?jug: most of large elaborate triangle.

Uncatalogued: 2.

Uncatalogued: 1 small body sherd with part of elaborate triangle.

Note also in shape catalogue **362**, **389**.

Rosettes

Two types of rosette are represented among this material, both consisting of 4 elements—petals or dots. Dot rosettes are unconfined, petalled rosettes may be enclosed in a circle.

There are slight variations in the basically leaf-shaped petal type. The petalled rosette, in particular, is characteristic of the early Curvilinear style where it is especially common on jugs.

Cf. Atkinson *et al.* 1904, pl. xiv. 3 (includes also 4-dot rosette), 6 c, 8; Barber 1974, 31 nos. 35 (MM26), 173 (MM142) and fig. 6, photos. Dawkins and Droop 1911, pl. xiii.

448 (752) $\Phi_{11}/2$ (PLATE 12)

Body sherds (2 joining) of ?jug: large solid 4-petalled rosette with trace of 4-dot rosette in same zone, cc band.

A pencilled number '12' on one sherd is unlikely to be from 1911.

449 (753) $\Phi_{11}/2$ (PLATE 12)

Heavy body sherd of closed vessel; orientation uncertain: buff; large solid 4-petalled rosette in thick circle, parts of other curvilinear motifs.

450 (754) $\Phi_{11}/2$ (PLATE 12)

Body sherd of small closed vessel (?jug): buff; trace of cc band, 4-petalled rosette in thick circle.

451 (755) $\Phi_{11}/2$ (PLATE 12)

Body sherd of open vessel: cc band (?at lip), zone of crescents, 4-petalled solid rosette in field.

Note also in shape catalogue **319?** open outline; **412** dots; **414** circle with discs at circumference.

Uncatalogued: 1.

Spirals

In the Curvilinear style spirals are almost always both 'disintegrated' (Furumark 1941, 221) and composed of very few coils. The centres are either completely open or else formed of a plain disc. They are often used as appendages to, or incorporated in, other motifs (Atkinson *et al.* 1904, pl. xiv. 10).

Cf. (e.g.) *ibid.* pls. xiv. 9, xv. 1; for spirals on panelled cups, cf. *ibid.* pls. xvi. 5 (single, vertical), xvii. 11 *a-b* (running).

452 (772) $\Phi_{11}/?_{10}$ (PLATE 12)

Body sherd of panelled cup: double bracket and running spirals.

453 (740) $\Phi_{11}/14$ (PLATE 12)

Rim of panelled cup: bracket at rim; in field, part of (either) vertical double spiral (or) single spiral with stem rising from base; bit of a ?floral.

454 (783) $\Phi_{11}/?_{10}$ (PLATE 12)

Sherd from near foot of panelled cup: side of panel, fragment of bracket, rising spiral (cf. Atkinson *et al.* 1904, pl. xvi. 5).

455 (741) $\Phi_{11}/?_{10}$ (PLATE 12) Rim of panelled cup: dark buff; bracket at top and bottom, running spirals in field. Unusually, the spirals have multiple coils.

456 (757) $\Phi_{11}/2$ (PLATE 12)

Body sherd of ? : thin but fairly coarse, with interior rough to the touch; simple spirals with large open centres between cc bands; attached to the ?lower of these, part of another cc band with trace of further spiral zone below (cf. Atkinson *et al.* 1904, pl. xv. 1, 8).

457 (758) $\Phi_{11}/14$ (PLATE 12)

Body sherd of closed vessel: buff; part cc band, part of zone of double spirals but with large central discs, then 2 more cc bands (cf. Atkinson *et al.* 1904, pls. xiv. 9, xvi. 13 (neither has discs).

458 (760) $\Phi_{11}/14$ (PLATE 12)

Body sherd ?from shoulder of jug: linked ?spirals with widely spaced coils; pointed ovals in the interstices.

459 (756) Φ 11/2 (PLATE 12)

Body sherd of ?cup; LCW/LL; WT; two slight cc horizontal ridges o/s; bit of series of linked multi-line spirals with triangle of dots as angle-filling.

This is a late, probably LC, piece much closer to LL types in respect of both spiral and angle filling.

Spiral creature

460 (759) Φ 11/2 (PLATE 12)

Body sherd of ?panelled cup: upright 'winged' spiral creature (?) rising from bracket, traces of two others ?similar. For upright single spiral and hook

Spiral 'tree'

This motif, common in the B&R style (q.v.), is rare in monochrome.

461 (761) Φ 11/K (PLATE 12)

Body sherd of ?; L/CCW; part of spiral tree.

Grasses/florals

Clumps of thickish grasses or foliates are common in the later Curvilinear (Naturalistic) style.

Cf. Atkinson *et al.* 1904, pl. xvii. 19, 20, 22, 23.

462 (767) Φ 11/2 (PLATE 12)

Body sherd of thin-walled closed vessel: pendent from a cc band, grasses/foliate extending from a semicircular base.

Cf. Atkinson *et al.* 1904, pl. xvii. 19.

463 (768) Φ 11/2 (PLATE 12)

Body sherd, probably of panelled cup: complex pattern of grasses/florals, somewhat similar to Atkinson *et al.* 1904, pl. xvii. 20, 22.

Flower

465 (769) Φ 11/14 (PLATE 12)

Body sherd of?: LCW; part of spiral flower with central bud.

Cf. **726** (B&R).

466 (774) Φ 11/?10 (PLATE 12)

Body sherd of panelled cup: thin-lined flower (cf. Atkinson *et al.* 1904, pl. xxviii. 8-LL).

Bracket

A very common, mainly subsidiary, pattern in the later Curvilinear style. Often found pendent from the lips of panelled cups, where it is sometimes doubled, also at the foot of the panel. It appears too on the lips of shallow cups, on the rims of inturned-rim bowls, and occasionally on the necks of jugs and other shapes (cf. **392** above).

Note also in shape catalogue **318** (upright), **319**, **326**, **336** (double), **343** (double), **347** (vertical, double), **348**, **351**, **357**, **371**, **372**, **383**, **384**?, **396**, **404**?, **424**, **427**.

Uncatalogued: 41 (2 joining).

cf. Atkinson *et al.* 1904, pl. xvi. 5 (= Zervos 1957, pl. 274).

Uncatalogued: none.

Uncatalogued: none.

464 (782) Φ 11/2 (PLATE 12)

Sherd from near rim of panelled cup: side of panel, bracket with pendent buds/foliate.

Cf. Atkinson *et al.* 1904, pl. xvii. 22.

Note also in shape catalogue: floral—**339**, grasses—**323**, **363**, **364**.

Uncatalogued: floral elements 18, grasses 1.

467 (770) Φ 11/15 (PLATE 12)

Body sherd of ?cup: complex motif with curving lines, part of a spiral and rays, the latter perhaps resembling the motif on **465** with vertical lines instead of a bud.

Uncatalogued: 2.

Cf. Atkinson *et al.* 1904, pls. xvii. 2–4 etc., xvi. 13, xxxiii. 17.

468 (739) $\Phi_{11}/?_{10}$ (PLATE 12)

Rim of panelled cup: double bracket at rim.

469 (771) $\Phi_{11}/?_{10}$ (PLATE 12)

Sherd from neck of jug: plastic stud; bracket neck band, traces of two other motifs, one pointed.

Note also in shape catalogue **317, 318, 320, 325, 332, 344, 345, 347, 365, 366/368, 367, 370, 371, 390, 392, 400?, 404, 414.**

Uncatalogued: 13.

Solid oval

470 (780) $\Phi_{11}/2$ (PLATE 12)

Body sherd of panelled cup: side of panel; within, a large filled oval, set near the horizontal.

471 (781) $\Phi_{11}/?_{10}$ (PLATE 12)

Body sherd of panelled cup: side of panel, bracket at bottom, in field, part of a large filled oval,

possibly part of another motif, perhaps as Atkinson *et al.* 1904, pl. xvii. 27.

Note also in shape catalogue **402.**

Uncatalogued: none.

Other

A significant number of sherds are decorated in a perceptibly thicker and cruder linear style (cf. Atkinson *et al.* 1904, pl. xvii. 21, but not otherwise well represented in the illustrations); also above **460, 465, 467**, which seems to include many connecting elements consisting of double straight or curving lines, the interstices filled with dots, blobs etc. The similarity of some of these to certain subsidiary elements in LL decoration (Atkinson *et al.* 1904, pl. xxviii. 16a) suggests that it belongs to a late stage of the late Curvilinear (Naturalistic) style.

472 (773) $\Phi_{11}/19$ (PLATE 12)

Body sherd of small closed vessel: double curved lines with filling of blobs projecting from each side alternately. Possibly a crude whorl pattern, cf. **648** (LL), with references, **474.**

473 (775) $\Phi_{11}/16$ (PLATE 12)

Body sherd of Φ : wing-shaped object filled with crude stripes, traces of another solid motif.

474 (776) $\Phi_{11}/2$ (PLATE 12)

Body sherd of Φ : fish-shaped element filled with rough dots and blobs. Possibly whorl pattern, cf. **648** (LL), **472.**

475 (777) Φ_{11}/K (PLATE 12)

Body sherd, probably of shallow cup: red coated interior; unidentified motif, perhaps as Atkinson *et al.* 1904, pl. xxvi. 19.

476 (785) $\Phi_{11} ??$ (PLATE 12)

Body sherd of panelled cup with lower handle root: the root ringed; part of line round body/base junction forming base of panel; one side of panel with traces of interior decoration.

Uncatalogued: c.15 sherds of this type are included with the 'Uncertain motif' category below.

Sherds with 'sparse' decoration

Atkinson *et al.* 1904, 118, paragraph 9 and pl. xviii. 17, 22–5.

Furumark 1941, 222 n. 5.

A number of fragments described thus in the 1904 report have been subsequently identified as MH imports (see below), although it has to be said that their fabric does not differ perceptibly from that of CW. Apart from these, some other pieces (**391, 394, 430**) may also fall into this category (see also Sherratt 2000, 249, 13.b.i.125 and pl. 340) since they seem distinctive in their use of minimal decoration and/or thin linear motifs in isolation from each other. It is not however clear whether these are imports or simply represent a different approach within the CW style.

The style of the following two entries generally recalls MH decoration and pieces assigned as MH II imports by Furumark. Triangular shapes are common in MH (Buck 1964, Motif 36) but rarely single, though Goldman 1931, pl. XV–3 (p. 154) has both single triangle and spiral (ibid. pl. XV–2—and p. 159—shows

other triangular forms). No parallel for the pattern on 478 has been forthcoming, though a similar idea is reflected, in a thicker technique, on Siedentopf 1991, no. 46, pl. 11 (Stadt IX).

477 (176) Φ11/2 (PLATE 12)

Body fragment (2 sherds joining) of closed, carinated vessel: line on top of rim, double cc lines at carination; above, widely separated, a 'v' (left; possibly part of a diamond) with central stroke and a spiral (right).

The larger sherd has a pencilled mark '12' that is unlikely to be from the 1911 excavation.

478 (177) Φ11/2 (PLATE 12)

Body sherd of ?jug: broad zone of 3 rows of open rectangles between double lines; linked (double?) spirals with 4-dot rosette(s).

The form of the interior surface suggests that the scheme is vertical.

Note also elsewhere in shape catalogue 391, 394?, 430?.

Uncatalogued: 1 body sherd with double cc bands only, apparently from same shape as 477. Other uncatalogued CW sherds: zigzag/ wavy line 9; linear and indeterminate 61 (2 joining); uncertain motifs 38.

Uncatalogued: 3 with linear or curvilinear elements.

The following motifs are represented in the shape catalogue but not among the decorated sherds: bird 328?, 404; monster 357?, 362; eye 398-400, 419-21; rock pattern 336?, 338-9, 342?; crosshatch 324, 374-6; lines/bars 341, 355, 357, 373, 377 (diagonal), 382, 427-8, 430; circle with two part-discs attached to opposite sides of the interior 393; 'rosette' (circle with discs attached to the circumference) 414; cross 376, 382; (with 'set-square' filling of the arms), both underneath; arcs 402-3, 410; chevrons 322?; wavy line 323, 328-30, 351, 356, 358?, 382 (thin), 383-4, 390, 394, 402-3, 408 (unnumbered base), 413, 418, 429, angular: 375-6, 380 (u-shapes, underneath); plastic stud 322; nipple 416.

In addition to the above there are c.90 uncatalogued sherds with identifiable motifs, which have been stored by shape. Among these are several examples of all of the following: eyes, wavy line, spiral (various types), bracket pattern, pointed ovals, plain circles, quirk; and one or two examples of: monster, discs, handle stripes, blobs, grasses?, TTR.

POTMARKS

Summary of list of potmarks in Cycladic White: 326, 330, 332-3, 339, 360-1, 379, 426, 428, 430.

LATER LOCAL POTTERY

Atkinson *et al.* 1904, 129-43.

Dawkins and Droop 1911, 10-15.

Furumark 1950, 192-201.

Scholes 1956, 24-7.

Caskey 1972, 391-7.

Barber 1974, 37-42.

Barber 1978, i. 197-212, ii. 54-73.

Doumas 1983, 108-13 and figs. 13-16.

Cummer and Schofield 1984.

Barber 1987, 167-72.

Marthari 1990, 1993.

Sherratt 2000, 278, 287-8 (263-6, 271-2 are also relevant).

Barber 2007, 207-13.

Davis and Cherry 2007.

The term 'Later Local' has been retained from the 1904 report ('The Later Local Pottery of the Mycenaean Period'). In shapes and decoration it is closely related to the pottery of Late Minoan I. Davis and Cherry (2007) discuss shapes and motifs, adopting a classification on the basis of surface treatment (Burnished/Unburnished: Plain/Patterned).

Included in this class (as in Atkinson *et al.* 1904; see p. 133) are cups assigned by Furumark (1950, 198) to LC II on the basis of the LM I B origin of their decoration. These have a finer fabric and smoother surfaces than other cups of roughly similar shapes.

FABRIC AND PAINT

The fabric of 'Later Local' pottery is considered in most detail under the heading 'Later Local Painted' (LLP) by Vaughan and Williams (2007, 101–2). Some heavier/coarser pieces should be assigned to their Coarse Local Painted (CLP) category.

It is important to note that the later material in the Cycladic White category (Late Cycladic White, LCW) shades into Later Local/LLP—a process involving change from a sub-white to a buff-coloured biscuit. On the basis of fabric alone, it is often difficult to assign a sherd confidently to one category or the other (LCW or LL). Amongst the material listed below are a number of sherds with a whitish fabric which might, on that ground, be classified as LCW, but which have been retained in this category because of the nature of the decoration.

'Late Cycladic decoration' is discussed further below but it should be noted, in advance, that the original quality of the paint, which now seems almost always matt monochrome red and/or black, is often uncertain and comments on this aspect are accordingly sparing.

DISTRIBUTION AND CHRONOLOGY

There are extensive deposits of material which can be assigned to this class from all major sites and some finds have been made on other Cycladic islands. Apart from the small group of cups mentioned above, there are at present no local features which can be assigned exclusively to LC II, although deposits of the period can be identified on the basis of imports of LM I B/LH II A (Barber 1974, 51).

LL pottery defines the beginning of the Late Cycladic period in ceramic terms. There is some (strictly limited) evidence from Phylakopi that it makes an appearance at the end of the Second City (II-iii).

COMMENT

The new material from Phylakopi and the relatively recent finds from Akrotiri and Ayia Irini have greatly enlarged the corpus of LC material and provided additional stratigraphic information. Studies of individual shapes and motifs are particularly needed and comparative surveys would be welcome. A clearer definition of LC II, in local terms, might be attempted on the basis of the Phylakopi 1911 stratigraphy (Barber 1974, 4–17) and information now available from Kea.

Cups (Keftiu/Vafio/Straight-sided)

Atkinson *et al.* 1904, 133 Shape 5.

Barber 1974, 38–9 Shape 5.

Barber 1978, i. 203, ii. 58 (also i. 169 Shape 4 (a), ii. 34).

Barber 2007, 214 (Coarse).

Finds from Phylakopi II-iii and III-i, Kea Periods IV, V and (especially) VI. Others from Naxos and Thera.

479 (219) $\Phi 11/14$ (FIG. 24)

D. c.o.13; H. o.o24.

Rim (2 joining fragments).

Whitish fabric, not far from LCW.

In faded blackish paint: line on top of rim; below, TTR.

480 (218) $\Phi 11/24$ (FIG. 24)

D. c.o.12; H. o.o28.

Rim.

In red paint: band at rim o/s; below, TTR.

Cf. Barber 1974, 38 no. 127 (MM105), photo. Dawkins and Droop 1911, pl. viii.

481 (221) $\Phi 11/24$ (PLATE 13)

D. c.o.125; H. o.o33.

Rim.

In red paint: band at rim o/s; below, TTR.

482 (220) $\Phi 11/14$ (FIG. 24)

D. o.13; H. o.o51.

Rim.

Whitish fabric; WT.

Coated red i/s.

In black paint: band on top of rim, also o/s, where it curves to follow the motif below, viz. a series of widely spaced arcs or a very broad spiral.

This is unusual decoration for a cup of this type and there seems no parallel for a red-coated interior.

Cf. (for possible spiral type) Barber 1974, 38 no. 141 (MM127), photo. Dawkins and Droop 1911, pl. x (SG cup).

483 (217) Φ 11/14 and 24 (FIG. 24)

D. c.o.125; H. o.o58.

Rim (2 joining fragments), with complete strap handle.

In faded dark paint: bars on handle; traces of band on rim o/s with, below, probably TTR, but there seem to be some horizontal stripes.

Cf. Barber 1974, 38 no. 48 (MM-), photo. Dawkins

and Droop 1911, pl. viii; Atkinson *et al.* 1904, pl. xxv. 8 (bars on handle).

484 (234) Φ 11/24 (FIG. 24)

D. (of base) c.o.075; H. o.o56.

Part of base.

In red paint: cc band with, below, TTR; on underneath, concentric semicircles.

Cf. Atkinson *et al.* 1904, pl. xxv. 10.

485 (708) Φ ?11/B (FIG. 24)

D. o.o6; H. o.o21.

Base; the base very slightly convex; the interior rough.

LL, but harder fired than usual.

?Slipped white o/s.

In streaky brownish paint: a thick band round the edge of the base underneath; others, at the base o/s and above.

Uncatalogued: 1 rim, 3 bases.

Cups (semiglobular/hemispherical/rounded)

Atkinson *et al.* 1904, 132-3 Shape 4.

Barber 1974, 38.

Barber 1978, i. 202, ii. 56-7.

Barber 2007, 207-8 (LL).

The subdivision used here, which may not be of particular significance, is essentially that adopted in Barber 1974: (a) strongly everted rims; (b) (i) straight rims; (b) (ii) slightly offset rims; (c) shallower bowl; thinner, harder-fired fabric with smoother, burnished surfaces and 'close' decoration (see above).

Contexts: (a-b) Phylakopi II-iii/III-i and -ii; (c) Phylakopi III-ii. Other finds: Kea Periods ?V, VI; Naxos, Thera.

(a)

486 (203) Φ 11/3 (FIG. 24)

D. c.o.17; H. o.o37.

Rim.

In brownish paint, perhaps originally lustrous: band at lip o/s; below, zone of foliates.

487 (202) Φ 11/24 (FIG. 24)

D. c.o.155; H. o.o37.

Rim.

Whitish fabric.

In streaky black paint: broad band at lip i/s, o/s; below, zone of crescents.

488 (190) Φ 11/5 (FIG. 24)

D. c.o.18; H. o.o29.

Rim.

(b) (i)

491 (206) Φ 11/3 (FIG. 24)

D. c.o.15; H. o.o41.

Rim (2 sherds joining).

In red paint: band at lip i/s, o/s; on body, TTR.

Both shape and motif common, but not in combination.

489 (189) Φ 11/16 (FIG. 24)

D. c.o.13; H. o.o43.

Rim.

In red paint: band at lip i/s, o/s; on body, TTR.

490 (188) Φ 11/11 (FIG. 24)

D. o.13; H. o.o6.

Rim.

In reddish paint: band at lip i/s, o/s; on body, coarse wavy line or spiral.

Cf. Atkinson *et al.* 1904, pl. xxvi. 4.

In red and black paint: red band at rim o/s; then parts of zones of dark foliates and crosshatch separated by a red cc band.

492 (205) Φ 11/15 (FIG. 24)

D. c.o.115; H. o.o42.

Rim.

In streaky black paint: band at rim, then crude spiral with large central dot.

493 (201) Φ 11/3 (FIG. 24)

D. c.o.17; H. o.o46.

Rim (4 sherds joining but only 2 assembled).

(b) (ii)

494 (210) Φ 11/15 (FIG. 24)

D. c.o.11; H. o.o37.

Rim.

Whitish fabric.

In streaky blackish paint: band at lip o/s; on body, crude spiral (overrunning onto the lip band) with dotted centre.

Cf. Barber 1974, 38 no. 198 (MM106), photo. Dawkins and Droop 1911, pl. x (BSJ).

495 (198) Φ 11/15 (FIG. 24)

D. c.o.13; H. o.o41.

Rim.

In red and black paint: red band at lip o/s; on body, separated by thin red bands, a zone of dots and another of wavy line.

Cf. Barber 1974, 38 no. 186 (MM132), photo. Dawkins and Droop 1911, pl. x (BSJ).

496 (200) Φ 11/24 (PLATE 13)

D. ?; H. o.o47.

Rim fragment, with slightly pinched lip.

Powdery white fabric, close to LCW.

In streaky blackish paint: band at lip o/s; below, TTR.

The motif is hard to parallel on this form.

497 (195) Φ 11/15 (FIG. 24)

D. c.o.11; H. o.o51.

Rim (3 sherds joining).

Whitish fabric.

In streaky blackish paint: band at lip o/s; on body, crude spirals (overrunning onto the lip band) with 5-dot centres.

Cf. **494**.**498** (209) Φ 11/18 (FIG. 24)

D. c.o.13; H. o.o3.

Rim.

Brittle fabric, with black surfaces.

In white paint: blobs on i/s of lip, band on o/s; below, a zone of chevrons directed right.

Cf. (for motif) the lower zone on a Kamares jug: Atkinson *et al.* 1904, pl. xxiv. 8.

Unusual.

Whitish fabric.

In black paint, sometimes streaky: band at lip o/s; below, zones of foliates and crosshatch, separated by a cc band.

For foliates on this shape cf. Atkinson *et al.* 1904, pl. xxvi. 6; for crosshatch (on a Vafio cup) *ibid.* pl. xxv. 8.

499 (208) Φ 11/5 (FIG. 24)

D. c.o.13; H. o.o37.

Rim; the rim short and almost horizontal.

In matt and glossy red paint: band on top of outturn and to below rim o/s; then crude ?crescents (glossy).

Unusual.

500 (628) Φ 11/AK (PLATE 13)

D. c.o.125; H. o.o53.

Rim (only a tiny fragment of the rim surface survives).

WT.

In red and black paint: red band at ?lip, with foliates below; then, black wavy line between bands; then, another foliate zone.

The combination of elements is unusual, if unsurprising.

501 (194) Φ 11/16 (FIG. 24)

D. ?c.o.15; H. o.o53.

Rim.

Thin white slip.

In reddish brown paint: paint has dripped i/s; band at lip i/s, o/s; below, thin wavy line; in field, rounded leaf with a protruding tip and obliquely trailing thin, wavy stem; trace of another thin-line motif below right.

Cf. **643-4**; (for leaf) perhaps Atkinson *et al.* 1904, pl. xxx. 1.

A distinctive style but without clear parallels. The thin linearity might point to LC II.

502 (197) Φ 11/15 (FIG. 24)

D. c.o.14; H. o.o47.

Rim, with plastic stud below lip band.

In red and black paint: at lip, wide red band o/s; on body, red spirals (or concentric circles) with centres consisting of black discs with dotted surrounds.

Cf. **504**; for plastic studs, see **689** (jug), also (for handles) Atkinson *et al.* 1904, 132 Shape 4.

503 (199) Φ 11/15 (PLATE 13)

D. ?; H. o.o43.

Rim, with slightly pinched lip.

In red and black paint: red band at lip o/s; on body, parts of a red spiral (?) and a double wavy line (black).

Cf. (for pinched lips) Atkinson *et al.* 1904, 132 Shape 4.

504 (196) Φ 11/15 (FIG. 24)

D. c.o.14; H. o.o57.

Rim.

In red and black paint: at lip, wide red band o/s; on body, red spirals (or concentric circles) with centres of black discs in dotted surrounds.

Cf. (for decoration) Barber 1974, 37 no. 87 (MM133), photo. Dawkins and Droop 1911, pl. iii (BSJ).

(c)

Cf. Atkinson *et al.* 1904, 133 and pl. xxvi. 14-18, 21-4, 26, 27; Furumark 1950, 198; Barber 1974, 38 Shape 4 (a).

506 (215) Φ 11/24 (FIG. 25)

D. c.o.14; H. o.o22.

Rim, with part of vertical RSH.

In brownish paint: band at lip i/s, o/s; below, bits of loose wavy line; on the handle, bars, and the roots ringed.

507 (213) Φ 11/17 (FIG. 25)

D. c.o.13; H. o.o6.

Rim (4 sherds joining).

In brownish paint: band at lip i/s, o/s; on body (in descending order), thin wavy line band, zone of alternating wavy cross (or loose swastika) and 8-dot rosettes, wavy line band, plain cc band.

Cf. (for loose swastika) Atkinson *et al.* 1904, pls. xxvi. 23, xxx. 9 a.

508 (193) Φ 11/3 (FIG. 25)

D. c.o.15; H. o.o39.

Rim.

In reddish brown paint: band at lip i/s, o/s; on body, foliates, with, below, thin triple wavy line.

509 (214) Φ 11/17 (FIG. 25)

D. c.o.145; H. o.o5.

Rim, with complete horizontal loop handle (2 joining sherds).

In brownish paint: band at lip i/s, o/s; below (in descending order) band of wavy line, zone of dot-rosettes (possibly also other motif(s)), band of wavy line/zigzag, cc band and trace of another; on the handle, bars and the roots ringed.

505 (-(MM312)) (PLATE 13)

L. o.o71.

Body sherd; detail of form uncertain.

Fine, white slipped and burnished o/s; i/s, remains of powdery red coat.

In lustrous red-brown and black paint: spirals with simple rounded angle-filling in between; below, outlined by two black cc lines, a zone of discs; below again, two thick cc bands (only the lines are black). The paint and surface finish are much finer than usual. The motifs are easily paralleled on such cups (cf. Dawkins and Droop 1911, pl. x), but not in precisely this combination.

For loop handle cf. Barber 1974, 38 no. 138 (MM112) and fig. 7, photo. Dawkins and Droop 1911, pl. x.

510 (192a/b) Φ 11/24 (FIG. 25)

D. c.o.15; H. o.o65.

Rim (2 sherds, not joining).

In dark brown paint: at lip, band i/s, o/s; on body, spirals linked by double irregular lines with, in between, dot rosettes with central discs. No. (192a) has two drips on interior.

A pencilled mark '10' on the smaller sherd is probably not from 1911.

511 (212) Φ 11/17 (FIG. 25)

D. c.o.13; H. o.o62.

Rim.

In brownish paint: at lip, band i/s, o/s; on body, in descending order, two bands of dots, three of thin wavy line, one of dots, three cc bands.

512 (-(MM293)) (PLATE 13)

D. c.o.16; H. o.o48.

Rim.

In slightly lustrous red-brown paint: at lip, broad band i/s, o/s; also a few tiny drips i/s; below lip o/s, a dotted band; in the centre of the main field, a row of swastikas with dots in between the arms; below, remains of a cc line with dotted line above (matching that below the lip band).

513 (-(MM294)) (PLATE 13)

D. ?; H. o.o49.

Rim.

In slightly lustrous mostly black paint: broad band at lip i/s, o/s; below lip o/s, in the main field, two

rows of rather crude, thick swastikas, with dots in between the arms; then a cc band, with a wavy line below.

Bases

514 (281) Φ 11/15 (FIG. 25)

D. (of base) ?c.o.05; H. 0.033.

Base.

Coated red i/s.

In red and black paint: two thick cc bands (the first at the base) and part of a third—the top zone has black wavy line, the bottom discs; underneath (indistinct) probably the edge ringed and a central motif (?line).

Cf. Atkinson *et al.* 1904, pl. xxvi. 9, 11; Barber 1974, 38 no. 84 (MM75), photo. Dawkins and Droop 1911, pl. x.

515 (231) Φ 11/14 (FIG. 25)

D. (of base) c.o.042; H. 0.035.

Base.

Coated purplish i/s.

In reddish-brown and faded black paint: on body, thick loose swastikas and indeterminate black motifs; band round base; underneath, crosshatch.

516 (230) Φ 11/14 (FIG. 25)

D. (of base) 0.048; H. 0.055.

Base and part profile (3 fragments joining); the base slightly raised.

Fabric quite brittle; WT.

In streaky brown, occasionally blackish, paint: i/s, splashes including a deliberate vertical row of droplets; o/s (top to bottom), three cc bands, wavy line; three cc bands, the lowest round and overlapping underside of base; underneath, cross.

Cf. (for lower body decoration) Barber 1974, 38 no. 77 (MM130), photo. Dawkins and Droop 1911, pl. x; (for cross underneath) Atkinson *et al.* 1904, pl. xxvi. 8.

Spouted bowl (a)

A single example (although several of the spouts and handles listed below may belong to similar shapes, cf. **584** etc.) of what may have been a fairly common ?late MC form.

Cf. Barber 2007, 219 no. 264 and fig. 6. 12 (Coarse Shape 13, most of which are larger).

520 (267) Φ 11/11 (FIG. 26)

D. ?; H. 0.082.

Length of channel 0.04; width (at inner end) 0.028, (at outer) 0.013.

Spout and part profile; the right edge slightly defective towards the tip.

517 (439) Φ 11/15 (FIG. 25)

D. (approx., of body) ? c.o.15, (of base) c.o.05; H. 0.066.

Base and part profile; part of the stump of a (presumably strap-type) handle.

Coated very streaky black-brown all over i/s.

In brown-black paint: (from base upwards) cc band at base, zone of dots, cc band; in main zone, spirals with double wavy links and dotted centres (part of one survives).

518 (554) Φ 11/24 (FIG. 25)

D. (base) 0.045; H. 0.025.

Base; slightly raised and slightly concave.

Pale colour, not far from CW.

In streaky brownish paint: band at base; TTR above, overrunning base band.

TTR seems unusual on this shape.

519 (555) Φ 11/24 (FIG. 25)

D. (base) 0.045; H. 0.048.

Base of ?cup.

Hard grey biscuit, smooth buff surfaces.

In streaky red paint: band at base; above, TTR (not wrinkled).

Possibly similar to Atkinson *et al.* 1904, 133 Shape 6 (cups without handles) and (e.g.) pl. xxv. 11.

Uncatalogued: (a) none identified; (b) 14 rims, 27 body sherds; (c) 18 rims, 12 body sherds.

Of 25 base fragments tentatively assigned to SG cups or bridge-spouted jars, most are likely to be from the former. Many of these bases have either a cross, a single line, or a crude spiral on the underside (cf. Atkinson *et al.* 1904, pl. xxvi. 7–11).

In reddish-brown paint: (the decoration worn) two bands under the spout (one is at the tip); below, at least two zones of decoration but the content is unclear.

Uncatalogued: none.

Spouted bowl (b)

Atkinson *et al.* 1904, 137 Shape 20.

Barber 1974, 39.

Barber 1978, i. 204, ii. 63.

Other finds from Thera. Probably late MC/early LC.

521 (696) Φ ?11/A (FIG. 26)

D. 0.20; H. 0.067.

Rim, with complete horizontal RSH. The rim projects externally.

Roughly smoothed i/s down to the level of the handle roots. In red-purplish paint: stripes on top of rim; band at and overlapping onto rim outside with, below, the handle roots thickly ringed. One ring has a pendent line and, to the left, another thick line could belong to a spiral or simpler motif such as the pendent loops on 522.

Cf. Atkinson *et al.* 1904, pl xxvii. 12; Barber 1974, 39 no. 52 (MM371) and fig. 7, photo. Dawkins and Droop 1911, pl. x.

A piece from Kea (LC II rhyton cup, Cummer and Schofield 1984, 56 no. 179 and pl. 49), roughly similar in shape though with different lip and handle, is said to provide a prototype for the decoration, but the Melian vases are probably earlier (Furumark 1950, 195 and n. 4).

522 (697) Φ ?11/B (FIG. 26)

D. 0.18; H. 0.073.

Rim, similar to 521 but much less projection. WT.

In red-purplish paint: stripes on top of rim; band below the rim outside with parts of two pendent loops.

Uncatalogued: none.

Flower vase ('flaring bowl')

Atkinson *et al.* 1904, 118 Shape 8.

Barber 1974, 33-4 Flaring Bowl.

Barber 1978, i. 185-6, ii. 45 Flaring Bowl.

For further comment, see Plain Ware.

All the above references are to the Cycladic White category. Undecorated examples (more common) are with the Plain Ware below, 765-6.

523 (-(MM366)) (PLATE 13)

D. (base). 0.05+ (worn); H. 0.099.

Base and lower body.

In red paint: band in angle of base, reeds.

Cf. Barber 1974, 33 no. 40 (MM94) and fig. 6, photo. Dawkins and Droop 1911, pl. viii.

Uncatalogued: none.

Inturned-rim bowls

Atkinson *et al.* 1904: included in 143-5.

Barber 1974: included in 42-6 (see references in catalogue entries below).

Barber 1978, i. 210-11, ii. 71 (see also i. 187-8, ii. 47-8 CW).

Sherratt 2000, 271-2.

As Sherratt points out, it is often remarkably difficult to assign these bowls with certainty to a specific ware.

There are examples from Melos and Thera, though the contexts are not particularly informative-LC I/II.

524 (295) Φ 11/2 (PLATE 13)

D. c.0.16; H. 0.027.

Rim.

LL or SMP.

White slip o/s and at rim i/s.

In brownish paint: line on top of rim, another, thicker on carination; on inturn, wavy line.

The closest decorative parallels (none is exact or on the same form) are on SMP vessels, e.g. Atkinson *et al.* 1904, pl. xii. 22.

525 (294) Φ 11/?10 (FIG. 26)

D. c.0.165; H. 0.037.

Rim.

?Thin white slip o/s.

In brownish paint: line on top of rim ?and on carination; on inturn, groups of three thick vertical bars alternating with a disc, itself ringed.

Cf. Atkinson *et al.* 1904, pl. xxxiii. 18 (not exact).

526 (297) Φ 11/?10 (FIG. 26)

D. c.0.205; H. 0.055.

Rim.

Thin white slip o/s on rim, extending to just below. In brownish paint: line on top of rim, another, thicker on carination; on inturn, thick wavy line; below, cc band (not shown on drawing).

Cf. 524.

527 (296) Φ 11/?10 (PLATE 13)

D. c.o.16; H. o.o58.

Rim.

?White slip on rim o/s.

In brownish paint: line at rim o/s; on inturn, bracket pattern.

528 (298) Φ 11/?10 (FIG. 26)

D. c.o.17; H. o.o7.

Pinch-spouted bowl

Cf. no. 375 etc. and references (CW).

530 (693) Φ ?11/A (FIG. 26)

D. c.o.17; H. o.o62.

Rim.

Hard fired and rather brittle.

Coated streaky, dark red-brown i/s.

In black paint: stripes on top of rim; thin bands on the lip and immediately below the carination; in the concavity between them, oblique stripes; pendent from the carination band, rough wavy line/zigzag.

Cf. Barber 1974, 45 no. 126 (MM346) and pl. 7 h; Davis and Cherry 2007, 293 Category C7.

Ladle/brazier/scuttle

Atkinson *et al.* 1904, 137 Shape 18.

Barber 1978, i. 204, ii. 62.

Georgiou 1986, 28–30.

See also Plain Ware 764.

Decorated examples seem confined to Melos; there are undecorated pieces from Kea and Thera as well. The decorated seem LC I, the undecorated from Kea are LC II.

532 (–(MM393)) (FIG. 27)

D. (rim; not circular) c.o.19; (base) o.o6; H. o.o75.

Complete profile.

Whitish fabric.

The surfaces smoothed but apparently not slipped.

In black to purplish paint: o/s, a thick band at the base; i/s, a thick band outlines edge of base—part of a cross within; the whole of the inside decorated with a ‘rosette’ pattern formed of alternate solid stalked triangles in the interstices of an arcade.

The ‘rosette’ pattern is similar to that found on conical handleless cups and fruitstands (for both,

Rim.

Thick white slip on rim o/s.

In brownish paint: line on top of rim, another, thicker on carination; on inturn, bracket pattern.

529 (694) Φ ?11/D (PLATE 13)

D. c.o.22; H. c.o.o45.

Rim, with bit of one side of spout.

Coated red i/s.

In brownish-red paint: indeterminate pattern, perhaps just the worn coating.

Cf. Davis and Cherry 2007, 290–1 Category C1.

Considerably larger than the standard for this form.

Uncatalogued: 1 rim.

531 (304) Φ 11/14 (FIG. 26)

D. c.o.11; H. o.o33.

Rim; small unpierced horizontal lug.

Thin white slip o/s and a band inside the rim; coated red i/s.

In black paint: line on top of rim and on carination; on carination, crosshatch; below, ?wavy line.

Cf. Barber 1974, 46 no. 86 (MM61) and fig. 9, photo. Dawkins and Droop 1911, pl. x.

Uncatalogued: none.

see 548 etc., and heading); also in the foot of a bowl from a mixed LC deposit on Kea (‘probably Minoan’: Cummer and Schofield 1984, 95 no. 1077 and pl. 70).

Cf. Cummer and Schofield 1984, 104 no. 1175 and pl. 76; 128 no. 1579 and pl. 87 (both undecorated); Doumas 1983 pl. 44 (‘brazier’), also undecorated, from Thera.

Uncatalogued: none.

Open bowls, basins, and baths (with decorated interiors)

Atkinson *et al.* 1904, 139-43, 173; 113 Shape 3 (CW).

Barber 1978, i. 205-6, ii. 65-6.

Barber 2007, 219-21 (Coarse Shape 13) and references.

Cf. 383, 384 (CW).

There is a considerable variation in size, shape, and rim form. The fabric is essentially coarser LL. 533-5 form a distinct category with surfaces either very smooth buff or thick white-slipped. The fabric is greyish, with thin red surface layers and prominent white grits.

The contexts seem to be weighted towards late MC, though some pieces certainly belong to early LC. Mainly from Melos, also Kea. Not evident on Thera where the equivalent form may be the *kymbe* (e.g. Marinatos 1968-76, vi, pls. 80-2).

533 (278) Φ 11/16 (FIG. 27)

D. (of base) ?0.07; H. 0.035.

Base; flat, slightly concave underneath.

O/s light brown, smoothed; i/s, a thick white slip a/o (resembles some LCW).

In blackish paint: inverted pear-shaped foliates radiating from a central circle.

Cf. Atkinson *et al.* 1904, pl. xx. 13 (B&R).

This type of motif is relatively common in the B&R style.

534 (279) Φ 11/3 (FIG. 27)

D. (of base) ?0.085; H. 0.017.

Base.

The biscuit is fairly uniform greyish throughout (though some white grits visible), close to LCW.

Slipped white a/o.

In brown to black paint: o/s, a line over the body/base junction; i/s, trace of a central blob or disc surrounded by discs which protrude inwards from a thick cc band; then a thin cc line from which extend crude elongated triangles with their points downward.

535 (487) Φ 11/7 (PLATE 13)

D. (of base) 0.064; H. 0.04.

Base.

In faded reddish (o/s) and black (i/s) paint: o/s, band at foot; underneath, a band round the circumference continues that at the foot o/s—within it, a cross; i/s, large disc in the centre of the base surrounded by smaller discs—the whole unit then ringed; above this, radiating rays, or rosette pattern as 551 etc.

No. 535 bears a number, probably '128' and almost certainly from the 1911 series. 128 has no entry in PCD but, if the number is correctly interpreted, would be from H. 4. 3. 99. 44 -24, according to the 'Catalogue of numbered vases with Find-spots'. Previous analysis of this level (Barber 1974, 6-7) suggested an early LC date.

536 (461) Φ 11/16 (PLATE 13)

L. 0.055.

Body sherd.

Thin pale slip (light buff) i/s, o/s.

In black paint: head of a fish or dolphin, the outer part of the eye reserved.

Cf. Atkinson *et al.* 1904, 113, 169, pl. xix. 3 (CW).

537 (699) Φ ?11/B (FIG. 27)

D. ?oval; H. 0.043.

Rim; the rim rounded and slightly thickened, with the beginning of a shallow pinched spout.

Grey fabric with white-grits.

In streaky brownish paint: wavy band on top of rim; band at/below rim i/s with, below, another, then pendent wavy line.

538 (698) Φ ?11/A (FIG. 27)

D. ?oval; H. 0.047.

Rim; the rim very slightly projecting i/s, o/s.

In streaky red-brown paint: widely spaced double stripes on top of rim; band at rim o/s and another below; i/s, a thick band at the rim with pendent curving lines (?semicircles).

539 (701) Φ ?11/D (FIG. 27)

D. ?oval; H. 0.071.

Rim.

On top of rim, groups of stripes and ?broad half-moons; i/s, in red and thin black paint: part of a scheme probably involving pendent crescents (red) and spirals (not extant) with black interstices.

Cf. (for decoration) Atkinson *et al.* 1904, pl. xxvi. 1 (cup with different colour scheme); the rim decoration is very similar to the exterior of 95 (SMP).

540 (700) Φ ?11/A (FIG. 27)

D. ?oval; H. 0.087.

Rim; the rim very slightly projecting i/s, o/s.

In red paint: stripes on top of rim; band below rim outside; inside, a thick band at the rim with, below (overlapping) thick-lined spirals.

541 (275) Φ 11/2 (FIG. 27)

D. ?c.o.32, perhaps oval; H. 0.077.

Rim.

The rim and inner surface slipped white (quite thick).

In black-purplish paint: band on top of rim; loops/wavy line pendent from rim; below, crude spirals, then trace of another circular motif.

Cf. Atkinson *et al.* 1904, pl. xxx. 2, 3, figs. 112, 113 (p. 140).

542 (-(MM469)) (PLATE 13)

D. c.o.30; H. o.o99.

Rim.

In red and black paint (o/s mostly streaky brown): on top of rim, groups of two thick and five thin stripes, alternating; o/s, thick band at rim with thick double loops pendent; i/s, red spirals with disc centres surrounded by black dots, the spirals linked by double red lines with black hatched filling and looping double lines with a row of dots in the interior; angle filling of simplified ivy leaf suspended by wavy line; trace of further motif below.

Cf. Atkinson *et al.* 1904, pl. xxiii. 3, 7 for similar elements.

543 (-(MM382)) (FIG. 28)

D. c.o.385; (base) o.148; H. o.224.

Complete profile and whole of base (12 joining fragments); the rim flat, slightly outward sloping and with slight external projection; the root of one handle, probably a horizontal loop, survives; a little restoration.

In reddish paint: on top of the rim, stripes; o/s, preserved is one double semicircle pendent from the rim band (cf. Atkinson *et al.* 1904, pl. xxvii. 12) and, apparently between the roots of the handle, a double ?circle, partly connected to the outside of the handle stump; trace of another circular motif, further round the vase; i/s, a thick cc band at the rim with, below, two zones of crude foliates, separated by wavy lines; from below second wavy line to large disc in centre of base, irregular vertical wavy lines all round.

Cf. Atkinson *et al.* 1904, pl. xxvii. 12 (for exterior decoration).

544 (-(MM885)) (FIG. 29)

L. 1.323; W. o.769; H. o.323 (all measurements, as restored).

Rim and some of upper part of bath, with row of large studs (D. o.o27, varies) below rim o/s; substantially restored but the base missing.

In black paint: on top of the rim, a continuous series of double stripes; i/s, below the rim, wavy line, then, reserved spirals resting on a 'sea' (also reserved) of double or triple wavy lines; the interstices filled in with black. Above, the spirals are linked by an irregular wavy line, not everywhere complete.

Cf. (for spiral form) Atkinson *et al.* 1904, pl. xxvi. 1 (LL cup); Marinatos 1968-76, iv, pl. 69 a.

545 (-(MM474)) (PLATE 13)

L. o.o73; D. (handle) o.o13—o.o15.

Fragment of bowl, with part of RSH.

In brown-black paint: the handle root ringed; below, part of ?thick wavy line; i/s, stem with leaves.

Cf. Atkinson *et al.* 1904, 131 fig. 101 (for style).

546 (274) Φ 11/17 (FIG. 27)

D. c.o.32; H. o.o41.

Rim; the rim T-shaped and projecting slightly o/s, i/s.

In brown, black, and purplish paint: on top of the rim, alternate purplish rectangles and groups of three black lines; i/s, a thick brown band, then a cc zone of discs (black), with trace of another brown band below; o/s, a thick purplish band at the rim, overlapping onto the projecting edge and, overlapping with this, on the body, a circular motif consisting of parts of two concentric circles, with discs in the zone between.

Cf. (for shape) Barber 2007, 219 no. 275 (Coarse) and fig. 6. 12; (for zone of filled circles) (e.g.) Barber 1974, 39 no. 182 (MM153), photo. Dawkins and Droop 1911, pl. ix.

547 (276) Φ 11/18 (FIG. 27)

D. more than o.32; H. o.o51.

Rim; the rim T-shaped, projecting more strongly inwards; concavity below rim o/s.

The top of the rim lightly slipped white.

In reddish-brown paint: wavy line on top of rim; i/s, a thick cc band below the rim at the point where the shape turns inwards.

Cf. Barber 2007, 223 no. 312 and fig. 6. 14 (Coarse).

Uncatalogued: 1 rim, 3 bases (1 very close to CW), 2 body sherds.

Uncatalogued: 1 rim, 1 base.

Fruitstand (Stemmed conical bowl)

Atkinson *et al.* 1904, 137–8 Shape 21 (p. 138, fig. 110).

Barber 1974, 39.

Barber 1978, i. 204, ii. 63.

Some of these pieces might be from another shape, which has very similar decoration and, in fragments, is difficult to distinguish—the conical handleless cup, for which see Atkinson *et al.* 1904, 133 Shape 6 and Barber 1978, i. 203, ii. 59.

There are no clear contexts. The closest external connections of the shape are with MM I–II Crete, cf. Evans 1921–36, i. 184 fig. 133 e (MM I); Pendlebury 1939, pl. xxii–2 (Phaistos). The LM ‘kalathos’ illustrated on Bosanquet and Dawkins 1923, fig. 53 (Form 25 and p. 70) seems almost identical in shape but is of different construction.

548 (272) Φ 11/17 (FIG. 30)

D. c.o.22; H. ?o.o23.

Rim.

?Thin white slip i/s.

In purplish paint: edge of rim painted; on inner surface, ‘rosette’ formed of arcades and tongues.

Cf. Atkinson *et al.* 1904, 138 fig. 110; *ibid.* pl. xxvii. 10 has similar motif on a saucer shape (Atkinson *et al.* 1904, 133 Shape 7).

549 (391) Φ 11/2 (FIG. 30)

D. o.o65; H. o.o11.

Base of ?fruitstand; flat, centre very slightly raised inside; only a minute part of the wall of the vase survives, though the base itself is almost complete.

Fabric could be LL, CWS or SMP.

White slip ?a/o.

In purplish paint: underneath, arrangement of 6 semicircles, two concentric pairs and two singletons, set at edges of base; on body, dark paint. Cf. Atkinson *et al.* 1904, pl. xxix. 11, 12. The painted lower foot fits with Atkinson *et al.* 1904, 138, fig. 110. The hole on **549** would have been in the missing part of the base.

550 (277) Φ 11/? (PLATE 13)

H. o.o2.

Body sherd with perforations, probably from neck of jug or boss of fruitstand; 3 whole perforations and parts of four others survive.

Carinated bowl or goblet

See **247** (DB) for references.

553 (657) Φ ?11/D (FIG. 30)

D. o.26; H. o.o77.

Rim.

Plain, quite smooth o/s.

The surviving bit of the exterior surface has a white slip.

In dark paint (the paint looks closer to that found on CW): band and part of curvilinear element(s).

Cf. Atkinson *et al.* 1904, 137 and 138 fig. 110 (fruitstand); for jug with neck strainer, see Atkinson *et al.* 1904, 136, Shape 16.

551 (–(MM455)) (PLATE 14)

D. o.21; H. o.o32.

Rim (3 fragments joining); the rim flattened.

In black and reddish paint: o/s, a thick red band under the flattened rim; i/s, cross-hatched zone (black) on flat rim, then ‘rosette’ pattern—the main design is black, the area between the cross-hatched rim and the ‘rosette’ is filled with red.

552 (273) Φ 11/17 (PLATE 14)

D. c.o.22; H. ?o.o42.

Rim, lightly beaded.

The surfaces roughly smoothed and different i/s (brownish) and o/s (blackish).

Traces of white line on rim o/s.

In purplish and black paint: i/s, ‘rosette’.

Motif and colour scheme as **551**.

Uncatalogued (fruitstands and conical handleless cups): none.

Coated matt red i/s.

The shape seems as 247 (DB) but the fabric and matt paint (RW) are much closer to LL.

?Pedestalled bowl

554 (408) Φ 11/24 (PLATE 14)

D. (of 'base') c.0.055; H. 0.056.

Body fragment of ?pedestalled bowl; the wide, coarse break suggests the presence of a stem.

WT.

In red paint: band at top of 'stem'; another, thicker, above, then broad zone of oblique lines/?crude crescents.

Lid

The non-Melian contexts are early LC.

555 (695) Φ ?11/D (PLATE 14)

D. c.0.18; H. 0.042.

Rim.

In red paint: band at 'rim' outside; above, two-legged circles.

The piece appears similar to the strainer lids from Thera (Marinatos 1968-76, ii, col. pl. E2 (= pls. 10-11), Marinatos 1968-76, vi, pl. 78 a), though they have handles; cf. also Cummer and Schofield 1984, 90 no. 986 and pl. 66.

Pyxis

557 (556) Φ 11/24; (FIG. 30)

D. 0.08; H. 0.021.

Rim; the rim plain and upright; broken at sharp carination, where there is the stump of the top end of a strap handle.

Hard, non-gritty biscuit; smooth buff surfaces.

Decoration in 'close' style: inside lip and upper part of interior, brick-red band; outside, in black paint, band on upright rim, thin band at carination (not complete); on shoulder, zone of swastikas; the handle ringed?

This form has not been noted elsewhere. The decoration and fabric connect 557 with 506 etc. (SG cups (c) of LC II).

The piece bears three numbers—'48' is probably not from the original excavation (the entry in PCD

It is difficult to relate this fragment to a known shape, unless it is simply the lower part of a jug or jar with the base largely destroyed.

Uncatalogued: none.

556 (536) Φ 11/K (FIG. 30)

D. 0.21; H. 0.034.

Rim and side of ?lid; the surface of the 'rim' worn.

Decoration in red (?originally lustrous): oblique bands of irregular thickness o/s; vertical thicker bands, with one thin, wavy, i/s.

Unusual. The form and rim wear suggest identification as a lid.

Perhaps similar to 555.

Uncatalogued: none.

confirms this), '27' might be, and 'J88' certainly is. '27' has no entry in the PCD but is listed under 'Minyan Ware' in *MMCat*. In the list of find-spots, it is recorded (PNB 3) as coming from J. 2. 1 δ-ε 98. 52-40, a II-ii level in which a Minyan vessel would be at home. Of the 'J' squares, only J1-5 have entries in the records of the excavation (*SNB*). J8 is well beyond the fortification wall and too far south to appear on either of the site plans in Atkinson *et al.* 1904 (pls. I, II). These various contradictions make it impossible to reach any conclusion on the context of 557.

Uncatalogued: none.

Bridge-spouted jars

Atkinson *et al.* 1904, 129-30 Shape 1.

Barber 1974, 37-8.

Barber 1978, i. 201-2, ii. 54-5.

Barber 2007, 191, 185 (Table) (All classes).

This form is very common at Phylakopi and found in all major M and LC fabrics. Earlier pieces are in DB and CW. Two of the LL examples have attested III-ii contexts, although the main period of later use may be III-i.

Several pieces have been illustrated from Thera (e.g. Marinatos 1968–76, vi, pl. 72 *b*) but the BSJ shapes figured in Doumas 1983 (109 fig. 14) appear rather different from those in use at Phylakopi. The BSJ does not seem so common in early LC Kea, though the impression could be deceptive (from LC contexts: Cummer and Schofield 1984, 136 no. 1707 and pl. 88; also 59 no. 220 (not illustrated), 78 no. 592 and pl. 58, 94 no. 1053 and pl. 69). Elsewhere in the Cyclades there is an example from Delos. The plainer rim forms are perhaps earlier.

Some of the following are likely to be spouted bowls.

(Plain, rounded, incurving rim)

558 (260) Φ 11/11 (FIG. 31)

D. c.o.17; H. o.o32.

Rim; the rim entirely plain; trace of spout edge at break.

Greyish fabric, not far from LCW.

(Upright rim, various inclinations)

559 (238) Φ 11/16 (FIG. 31)

D. c.o.09; H. o.o33.

Rim; the rim flattened on top, roughly formed inside.

Dark buff surfaces, smoothed o/s.

In brownish-black paint: the inner edge of the flat top of the rim outlined and part of its surface blocked in with a filled rectangle, presumably part of a series; on the upper body, linked spirals with curly connectors.

Cf. **392** (CW) for similar rim decoration.

560 (251) Φ 11/15 (FIG. 31)

D. o.15; H. o.o38.

Rim; the rim rounded, pointed; broken near edge of spout.

Slipped white o/s.

In red and black paint: on rim, red stripes; o/s, below a red cc band, zone of crosshatch (black), then a red band with pendent wavy line (black).

Cf. **574** (for decoration).

561 (245) Φ 11/18 and 24 (FIG. 31)

D. c.o.o75; H. o.o28.

Rim (2 fragments joining); the rim broad, upward sloping and slightly concave, with a ledge at the junction with the body; the stump of one end of a loop handle (or ?one edge of the spout).

In red paint: on top of rim, thin stripes (like TTR); the handle (or spout) painted or outlined; at rim/body junction but overlapping slightly onto the rim area, a band; below, thin TTR.

562 (237) Φ 11/15 (FIG. 31)

D. c.o.o7; H. o.o25.

Rim (3 fragments joining); the rim not evenly formed.

White slip o/s.

In streaky black paint (brownish on rim): band at rim o/s; part of band outlining spout; parts of two concentric circles (or spiral motif).

In red and black: blobs (alternate colours) on top of rim; red band over rim/body junction possibly running down to outline now non-existent handle; below, black wavy line with traces of another red band below.

Cf. Barber 1974, 37 no. 87 (MM133), photo. Dawkins and Droop 1911, pl. iii.

563 (239) Φ 11/15 (PLATE 14)

D. c.o.o8; H. o.o22.

Rim.

In red and black paint: two red blobs on inside of rim; red band over rim/body junction (mostly on body), perhaps dropping to outline handle; below, black wavy line.

564 (243) Φ 11/17 (FIG. 31)

D. c.o.105; H. o.o4.

Rim; rough inside.

In red and black paint: black bars/rectangles on top of rim; broad red band in 'neck'/body junction; below, a black band and another, thinner; below, foliates (black) ?interspersed with other motifs.

565 (241) Φ 11/3 (PLATE 14)

D. ?c.o.o9; H. o.o36.

Rim; rough inside.

In red and black paint: black bars on top of the rim; broad red band in 'neck'/body junction; below, a black band and pendent ?foliates or flower.

Cf. Atkinson *et al.* 1904, pl. xvii. 19 (CW).

566 (242) Φ 11/16 (FIG. 31)

D. c.o.o75; H. o.o34.

Rim; the rim everted, flattened on top; abraded inside.

In red and black paint: black ?wavy line on top of

the rim; broad red band in 'neck'/body junction; below, a black band and another, thinner, then pendent ?foliates or a flower (black).

567 (254) Φ 11/17 (FIG. 31)

D. c.o.o85; H. o.o45.

Rim, with spout narrowing to tip (L. (channel) o.o46; W. (inner end) c.o.o14, (outer) o.o05); left side of the tip defective.

Greyish fabric.

In black paint: stripes on top of and on o/s of rim; band at rim o/s, with trace of thin double wavy line below; band all round the lip of the spout and its root outlined.

568 (265) Φ 11/22 (FIG. 31)

D. ?c.o.22; H. o.o41.

Rim (of BSJ or spouted bowl), with complete horizontal RSH.

(Incurving, broad flat topped rim)

570 (244) Φ 11/3 (FIG. 31)

D. c.o.o9; H. o.o5.

Rim (2 fragments joining).

In red paint: bars on top of rim; red band in 'neck'/body junction; below, a zone consisting of two rows of opposed foliates, then a broad red band.

Cf. Barber 1974, 37 no. 53 (MM111), photo. Dawkins and Droop 1911, pl ii (shape and decoration).

571 (250) Φ 11/3 (FIG. 31)

D. c.o.13; H. o.o26.

Rim; slightly convex o/s.

In red paint: stripes on rim; outside edge of rim painted; band at top of shoulder.

572 (253) Φ 11/17 (FIG. 31)

D. c.o.20; H. o.o75.

Rim, with complete horizontal RSH; the rim folded irregularly o/s.

White slip o/s.

In streaky brown-black paint: on top of rim, stripes; o/s, below rim and overlapping onto the rim itself, a cc band; the roots of the handle ringed; below, thick, more or less vertical stripes of an indefinite motif.

573 (252) Φ 11/9 (FIG. 32)

D. c.o.125; H. o.o48.

Rim, with one edge of the spout and part of the side of the hole.

Grey fabric, towards Plain Ware.

Probably white slip o/s.

In purplish paint: thick bars on rim, a thin line at the outer edge; band at lip o/s; the handle roots thickly ringed and the rings overlapping; below, ? Cf. Barber 1974, 39 no. 52 (MM371), photo. Dawkins and Droop 1911, pl. x (spouted bowl).

569 (266) Φ 11/19 (PLATE 14)

D. ?c.o.26; H. o.o31.

Rim (possibly of spouted bowl).

Harder fired than normal LL.

Smoothed brown i/s; white slip on top of rim and o/s.

In blackish paint: rectangular bars on rim; reserved band of slip below rim o/s; thin double-lined ?spirals, with dark angle filling, overlapping onto the reserved zone.

Perhaps as **568** (shape); for decoration cf. **482**.

In uneven brown-black paint: stripes on rim; below rim o/s, a darker cc band, then wavy line, then two cc lines; the surviving side of the spout is painted.

The decorative arrangement resembles that of Barber 1974, 37 no. 87 (MM133), photo. Dawkins and Droop 1911, pl. iii.

574 (248) Φ 11/7 (FIG. 32)

D. c.o.20; H. o.o92.

Rim (3 fragments joining), with complete small vertical RSH (o.o12-c.o.o53 below rim); the rim 'folded' with tiny channel underneath o/s.

In red and black paint: stripes on rim; at rim o/s, red band; below, a zone of crosshatch (black), then another red band with pendent wavy line (black); on main body, grasses in black and red.

Cf. Barber 1974, 38 no. 153 (MM99), photo. Dawkins and Droop 1911, pl. viii. For vertical RSH in this position, see Barber 1974 37, no. 53 (MM111), photo. Dawkins and Droop 1911, pl. ii.

575 (249) Φ 11/3 (FIG. 32)

D. c.o.27; H. o.o54.

Rim; the rim concave o/s.

In red paint: on top of rim, red rectangles alternating with black double/triple bars; at rim o/s, band; below, zone of double opposed foliates.

576 (271) Φ 11/15 (FIG. 32)

D. (interior edge) c.o.24; H. o.o31.

Rim of heavy vessel; the rim projecting inwards; broken before it terminates o/s.

White slip on top of rim and all over o/s; inside of rim smoothed.

In red and black paint: on top of rim, a thick red band at the outer edge and, within, an equally thick wavy line; on the outer side of the rim, groups of crescents of which the front one of each group is swollen to triangular form with a point reaching to the next group; also some ?irregularly placed black discs.

The motif may be related to Popham 1967, 338 fig. 1, no. 3: LM I A.

577 (—(MM473)) (PLATE 14)

11 body sherds (2 + 2 + 3 joining) of closed vessel, perhaps a large BSJ.

The 3 joined sherds suggest an upper body diameter of at least 0.35.

In red and black paint: bands and part of two zones—in the (narrow) upper, a crude zigzag/wavy line; in the (broad) lower, a series of thick red circles (spiral equivalents) with solid (red) disc

(?Bowls)

579 (259) Φ 11/3 (FIG. 33)

D. c.0.115; H. 0.07.

Rim; the rim upright, oval, everted; on the upper body, a small stud/nipple.

Greyish fabric, similar to Plain Ware.

White slip o/s.

In black (sometimes blackish) paint: thick stripes on top of rim; band at rim and another, thinner, below; between this and a further thick band is located the stud/nipple; then another thin band; below, on body, foliate pattern (perhaps the top part of a double zone).

N.B. No. 153 (MM99) (Barber 1974, 38, photo. Dawkins and Droop 1911, pl. viii) has a nipple on

(Bases)

581 (232) Φ 11/3 (FIG. 33)

D. (of base) 0.051; H. 0.034.

Base (probably of BSJ); the base raised.

In red and black paint: a red line round base; above, a zone of black discs, then a red cc band, then part of another zone with indefinite motifs in red and black ?alternating.

Cf. Atkinson *et al.* 1904, pl. xxvi. 9; Barber 1974, 38 no. 186 (MM132), photo. Dawkins and Droop 1911, pl. x.

582 (626) Φ 11/AK (PLATE 14)

D. (base) 0.057; H. 0.045.

Base and lower body of ?BSJ; previously joined.

In red and black paint: the base thickly ringed;

centres, outlined with black dots; the circles are connected by red tangents; angle filling of 6-dot rosettes in black and possibly grasses (bit of only one survives).

This piece is a classic example of the R&B style of decoration (Atkinson *et al.* 1904, 107, 129; Dawkins and Droop 1911, 10–11).

Cf. Atkinson *et al.* 1904, pl. xxv. 5 for several similar features.

578 (707) Φ ?11/E (PLATE 14)

D. 0.065; H. 0.049.

Base, perhaps of BSJ.

In red-brown paint: band at base o/s with another immediately above; above again, trace of a thick ?spiral.

Cf. Barber 1974, 37 no. 53 (MM111), photo. Dawkins and Droop 1911, pl. ii; Atkinson *et al.* 1904, pl. xxvii. 6.

the rear of the vase opposite the spout, although this does not show in the photo. and was not noted in the 1974 catalogue entry.

580 (261) Φ 11/11 (FIG. 33)

D. c.0.24; H. 0.113.

Rim of large vessel; the rim very slightly everted.

The biscuit is LL but the surface treatment and appearance are similar to LCW; the inside is uneven.

White slip o/s, on top of and inside rim.

In black paint: band at rim; below, cc band with, below and converging on it, thick concentric circles or spiral.

above, a zone of black discs with, above, part of another thick red band; traces of red motifs underneath, conceivably a painted potmark.

583 (280) Φ 11/15 (FIG. 33)

D. (of base) c.0.05; H. 0.046.

Base (2 fragments joining) of BSJ (or ?SG cup), with stump of loop handle on body; flat.

In red (mostly) and black paint: remains of a multi-line spiral in the handle zone; below, two cc bands of which the second is at the base—between the two is a thin black cc band; underneath, the edge of the base ringed and trace of a central motif (?line).

Cf. Atkinson *et al.* 1904, pls. xxv. 1, xxvi. 10 (line underneath base).

(Spouts and handles of bridge-spouted jars and spouted bowls)

Cf. also **520** (spouted bowl (*a*)).

584 (292) Φ 11/18 (PLATE 15)

D. ?; H. 0.042 (length of channel 0.043; width at i/s 0.021, at o/s 0.012)

Spout; slightly defective at left towards tip.

The fabric quite brittle.

In streaky black paint: the top and sides of the spout painted with the lines running onto the rim; a band under the tip of the spout and the spout/body junction ringed; in the bottom of the spout, a little to one side, a curved line (perhaps accidental), running over into the interior.

Cf. perhaps Atkinson *et al.* 1904, pl. xxvii. 12 (p. 137 Shape 20).

585 (291) Φ 11/16 (PLATE 15)

D. 0.011; H. 0.041 (length of channel 0.037; width, at inner end, 0.015, at outer, 0.014).

Complete spout and hole with bit of rim; edges of spout abraded towards the tip.

In black paint: the top edges of the spout painted, with the lines running on to the rim; a band under the tip of the spout and the spout/body junction ringed; in between the two, a wavy line.

586 (290) Φ 11/15 (PLATE 15)

D. ?; H. 0.049 (length of channel 0.044; width, at inner end, 0.021, at outer, 0.012).

Complete spout and hole with bit of rim.

Flat-rimmed jar

Atkinson *et al.* 1904, 119 Shape 7 (CW with B&R decoration).

Barber 1978, i. 191 (?pyxis), ii. 50 (CW).

A piece from late MC Kea (Caskey 1972, 388 F29 and pl. 91 (B&R)) is possibly of this form, and **589** could plausibly be assigned a similar date.

589 (247) Φ 11/9 (FIG. 33)

D. 0.0115; H. 0.039.

Rim.

The surface dark buff, well smoothed o/s.

In black: thick stripes on top of rim; top of floral clump (?grasses/flower) on body, one element extending upward onto underside of rim.

Jar/amphora

A miscellaneous category whose unifying characteristic is a relatively tall, outward-curving neck.

Parallels may be sought among MC material in various fabrics from the 1974–7 excavations at Phylakopi (Barber 2007 Shapes CW 13 (p. 203 no. 114 and fig. 6. 7), LL 8 (p. 210 no. 174 and fig. 6. 9), Coarse 17 (p. 225 nos. 324–8 and fig. 6. 15); also on Thera (Doumas 1983, 107 fig. 13 *b–d*).

593 is an oddity.

In black paint (the painting is careless): the top and edges of the spout painted with the lines running across the rim; a band under the tip of the spout and the spout/body junction ringed.

587 (288) Φ 11/15 (PLATE 15)

H. 0.064; D. (of handle) 0.013; W. (of handle, root to root) 0.057.

Body sherd, with complete horizontal RSH.

In red and black paint: stripes on the handle, its roots ringed and joined by a ?cc line; below, traces of a spiral or circle and ?angle filling of vertical chevrons (the only black elements).

588 (289) Φ 11/15 (PLATE 15)

H. 0.054; D. (of handle) 0.015; W. (of handle, root to root) 0.066.

Body sherd, with complete horizontal RSH.

White slipped o/s.

In faded red paint: thick stripes on the handle and its roots ringed and joined by a ?wavy line; traces of thick vertical lines.

Cf. Atkinson *et al.* 1904, pl. xxvii. 12.

Uncatalogued: BSJ rims 5, bases: a few, see note following **519** (SG cup), spout 1.

Uncatalogued: BSJ rims 2, bases: a few, spouts 2.

Cf. (shape) Sherratt 2000, 253 13.b.i.158, 159 and figs. 169, 170 *c*, pls. 360–1 (CW); **596** (fabric, style); also **402** etc. (CW).

Uncatalogued: none.

590 (263) Φ 11/18 (FIG. 33)

D. 0.13; H. 0.059.

Rim of ?amphora; the break on the body seems to show the beginning of a sharp spread or carination.

Fabric group uncertain, possibly MP.

White slip o/s, and i/s rim.

In red paint: band under rim o/s, two more below.

Probably an LC form.

591 (692) Φ ?11/B (FIG. 33)

D. c.o.11; H. 0.07.

Rim and neck fragment of amphora (or jug); slight remains of stud on shoulder.

Cf. Barber 2007, 225 no. 321 and fig. 6. 15 (Coarse).

592 (264) Φ 11/18 (FIG. 33)

D. 0.155; H. 0.045.

Rim of ?amphora.

In black-purplish paint: band on neck.

593 (262) Φ 11/15 (FIG. 33)

D. 0.135; H. 0.056.

Rim of jar, with horizontal RSH (D. 0.014; L. (root to root) 0.053); the rim is broad and flat, the neck short.

In red and black paint: on top of rim, wavy line; underneath and at top of neck, crosshatch to either side of a cc line (red); the handle roots ringed in red; below handle level, unclear.

Cf. above **574** (BSJ) (decoration); Marinatos 1968–76, v, pl. 60 a (left).

Probably an LC form.

594 (–(MM466)) (FIG. 34)

H. 0.074.

Rim (4 joining fragments), with one oval handle surviving.

(Oval-mouthed)

597 (691) Φ ?11/B (FIG. 34)

D. (of round opening—the mouth is oval) c.o.063; H. 0.095.

*Rim and neck, with two complete oval-sectioned handles from rim to shoulder.**In thick blackish paint: traces of a band outlining the top of the lip and of decoration at the rim end of the top of each**Pithoid jar*Atkinson *et al.* 1904, 139 Shape 23.

Barber 1974, 39–40 Shapes 23 a–b.

Barber 1978, i. 205 (cf. also 207 (3) amphoroid jar), ii. 64–5 (cf. also 66).

The pithoid jar seems a distinctively early LC form which does not appear in late MC. Examples from Melos (III-i and III-ii), Thera, and Kea.

598 has a much thinner rim than the rest.

In red paint: thick band inside rim; outer surface of handle painted; on body, and running right up to edge of rim, grasses/reeds.

The pattern suggests an early LC date.

595 (Unnumbered) (FIG. 34)

D. (rim) 0.097; H. 0.058.

Rim fragment, with neck and bit of shoulder; a section of the rim missing; unclear if there was a handle attached to the missing part.

Brownish biscuit with fairly fine white grits; pale surface, probably smoothed but not slipped; possibly MP.

In faded brown-purplish paint: pendent loops on inside of rim; outside, irregular oblique stripes pendent from rim, one in opposite direction to the rest; at the neck-shoulder junction, traces of a ?cc band with, above, ?wavy line and at least one loop.

Cf. Davis 1986, 31 L–3 and pl. 24.

596 (283) Φ 11/9 (FIG. 34)

D. (of base) c.o.05; L. 0.041.

Base of closed vessel of uncertain shape, possibly oval-mouthed amphora; the underside damaged.

Buff fabric.

Smoothed o/s.

In black paint: rough grasses rising directly from the foot.

Cf. Atkinson *et al.* 1904, pl. xxvii. 2, also pl. xix. 10. Resembles **589** (Flat-rimmed jar), both in fabric and style of motif.

Uncatalogued: none.

*handle with, in one case, a pendent flourish i/s; o/s, the handle roots ringed and parts of two thick cc bands, one at the base of the neck and the other in the handle zone.*Cf. Atkinson *et al.* 1904, pl. xxvii. 2.

Uncatalogued: none.

598 (268) Φ 11/3 (FIG. 35)

D. ?c.o.195; H. 0.046.

Rim; the rim flat on top and projecting externally. White slip o/s, on top of and inside rim.

In red and black paint: on top of rim at right-angles to the edge, groups of three black lines, alternating with thick red bars; on side of rim, red bars; at the rim/neck junction, a row of crude, black discs between red cc lines; then, a zone of crosshatch between thin lines (all black); then trace of one black cc band.

The decorative scheme is roughly parallel to that on Barber 1974, 39 no. 182 (MM153), photo. Dawkins and Droop 1911, pl. ix.

599 (270) Φ 11/3 (FIG. 35)

D. c.o.27; H. 0.045.

Rim; the rim rectangular in section, concave o/s.

White slip all over o/s, on top of and inside rim; inside of rim smoothed.

In paint varying from brown to black: on top of the rim, tongues in arcade; inner edge of rim lined; on slope of rim o/s, stripes; underneath it, in angle, wavy line; then a cc band with, below, traces of a zone of crosshatch.

Cf. Atkinson *et al.* 1904, 138 fig. 110, pedestal vase.

600 (703) Φ ?11/D (FIG. 35)

D. c.o.44; H. 0.078.

Rim.

Streaky red coat on top of rim and all over o/s, also a band below the rim i/s.

In white paint: crosshatch on top of rim; o/s, wavy line between bands, the upper of which is at the rim/body junction.

Cf. Seddon 1993, 100 no. 29 and fig. 12, pl. 26a (DB barrel jar); for rim decoration, see **249**, **248** (DB stemmed bowl).

An intriguing piece, which seems to be aligned with DB material.

601 (269) Φ 11/15 (FIG. 35)

D. over 0.25; H. 0.07.

Rhyta

Atkinson *et al.* 1904, 134–5 Shapes 10, 11.

Barber 1974, 39.

Barber 1978, i. 203, ii. 59–60.

Mainly, if not exclusively, LC I. From Melos and Kea, also Thera, where a number of these vessels seem to be imports (e.g. Marinatos 1968–76, v, pls. 63–4, 88).

Rim; the rim rectangular in section but with only slight external projection.

Reddish i/s, the upper part smoothed; white slip on top of rim and all over o/s.

In red, red-brown and black paint: on top of rim, thin black, alternating with thicker red, stripes (?= an arcade as **599**); on side, crosses alternating with groups of three vertical bars (all black, faded); thick brown-red band in angle of rim o/s; below, brown-red spirals linked by black double tails above black crosshatched connector.

For the double tails cf. Barber 1974, 39 no. 182 (MM153), photo. Dawkins and Droop 1911, pl. ix (lower spiral zone); the same vessel exemplifies crosshatch-filled links (in the upper spiral zone). See also Atkinson *et al.* 1904, pl. xxiii. 7.

602 (284) Φ 11/9 (FIG. 35)

D. (of base) ?c.o.12; H. 0.091.

Base of closed vessel, possibly pithoid jar.

In red and black paint, alternating by clump: clumps of grasses rising from the foot.

Cf. Barber 1974, 39 no. 100+ (MM365) and pl. 4 g. A pencilled number '19' inside is probably not from the 1911 excavations.

603–5 (713–15) Φ 11/A (PLATE 15)

L. 0.112, 0.143, 0.161.

Body sherds (3) of pithos.

Incised on relief bands: crescent-shaped slashes; on **604** these apparently form a circular setting; in red paint: trickle decoration, crossing the slashed bands.

Cf. Atkinson *et al.* 1904, pl. xxxiv. 13 (slashes but no trickle); Betancourt 1985, pl. 13 G (trickle but no slashes: MM III); Bosanquet and Dawkins 1923, 111–13 and figs. 96–7; also pp. 55–7 and (especially) pl. xxii g.

Uncatalogued: 2, both with crude TTR on top and side of square-sectioned rim.

Uncatalogued: 1 body sherd with trickle pattern over relief band.

(Conical)

606 (216) Φ 11/24 (FIG. 36)

D. c.o.105; H. o.o7.

Rim (3 joining sherds); rolled lip.

Hard fired, WT.

In streaky purplish paint: wide band at lip o/s; below, TTR, then trace of another broad cc band.

Cf. Barber 1974, 39 no. 174 (MM117), photo.

Dawkins and Droop 1911, pl. ii (shape).

607 (256) Φ 11/11 (PLATE 15)

D. c.o.065; H. c.o.11.

Body sherd.

?WT.

In red paint: part of a coarse spiral above two thick cc bands, with trace of coarse ?wavy line below.

The decorative arrangement may resemble the parallel quoted above for **606**.

608 (257) Φ 11/11 (PLATE 15)

D. c.o.085; H. o.o98.

(Ovoid?)

Cf. Atkinson *et al.* 1904, 135 fig. 107.

611 (392) Φ 11/24 (PLATE 15)

D. (max., of body) o.135; H. o.o7.

Body sherd ?of ovoid rhyton; orientation uncertain.

In red paint: two thick cc bands, zone of TTR, part of another cc band.

612 (711) Φ ?11/C (PLATE 15)

H. o.o6.

Askoi

Atkinson *et al.* 1904, 135 Shape 12 (p. 136, figs. 108–9).

Barber 1974, 46 (LH import).

Barber 1978, i. 203, ii. 60.

An early LC form based on a Mycenaean shape (FS 195). Found on Melos and Thera.

613 (229) Φ 11/15 (FIG. 36)

H. c.o.042.

Fragment with part of spout and small RS handle; the rim of the spout incomplete; about half the handle survives.

In red and black paint (faded): red stripes on the neck and its base ringed; then an indeterminate pattern of black ?circles and red dots.

Cf. Davis and Cherry 2007, 285 P1400 and fig. 7. 11; (for dotted motifs) Atkinson *et al.* 1904, pl. xxviii. 12, 16 *a–b*.

614 (246) Φ 11/15 (PLATE 15)

L. o.o48.

Body sherd, the diameter narrowing (towards tip). WT.

Decoration as **607**, except no trace of wavy line.

A pencilled number '30' is probably not from the 1911 season.

609 (258) Φ 11/11 (PLATE 15)

D. (max.) o.o75; H. o.o74.

Body sherd.

Whitish fabric.

In black, occasionally brownish, paint: linked spirals above cc bands.

610 (406) Φ 11/K (PLATE 15)

D. (max. pres.) o.o35; H. o.o68.

Tip; the tip perforated; only a tiny piece of the actual tip-rim survives.

In red paint: thick band round tip, another, thinner above.

Tip (complete) of rhyton (possibly conical or animal, rather than ovoid); the tip slightly shaped.

Apparently coated all over (including on the bottom of the tip) in red paint.

Uncatalogued: (conical): 1 body sherd; (ovoid): none.

Body sherd, possibly from the same vessel as **613**.

In red and black paint: indeterminate black and red linear motifs with red dots prominent.

615 (387) Φ 11/24 (FIG. 36)

D. (of spout) o.o22; (of opening) o.o08; H. o.o48.

Spout.

?White slip on exterior.

In red paint: thick band round the root of the spout; band round the tip o/s, i/s; lines (?TTR) running the length of the spout.

Uncatalogued: none.

Strainer

Atkinson *et al.* 1904, 128 and pl. xxiv. 1.

Barber 1978, i. 209, ii. 69–70.

For further references, Atkinson *et al.* 1904, 128 n. 3; Cummer and Schofield 1984, 97 s.v. no. 1106.

This form has been found on Thera (several examples) and Kea (Cummer and Schofield 1984, 97 no. 1106 and pl. 71) and there are parallels in Crete (Bosanquet and Dawkins 1923, 66 Form 14 and fig. 48. 14: MM III–LM I. None of the parallels have decoration like the pieces from Phylakopi.

616 (710) Φ ?11/B (PLATE 15)

D. ?; H. 0.054.

Body fragment, with part of perforated floor.

In red and black paint: a thick red band at the level of the perforated floor, its upper edge outlined in black; above, concentric arcs—the lines in black, the discs and dots in red.

Cf. **637** (LL) for similar decoration and **555**, a lid, both perhaps from vessels of this shape; **550** (fruitstand/stemmed conical bowl), for other perforated sherds.

Uncatalogued: none.

Jug

For references, see sub-headings below.

Collared/bridge-spouted jugs (found at all major sites) are most easily placed by their decoration, in LM I/early LC style. The cutaway-mouth jug (from Melos, Kea, Delos, in contexts from late MC to LC II) was thought by Furumark (1950, 195) to be of local derivation and to have MM III B links. Beaked jugs with pronounced channel spouts (vessels with channels narrowing towards the tip are more likely to be LC) are in the E/MC tradition, which continues in early LC, though LL pieces are not prominent in the Melian literature. The tradition is most evident on Thera, in the series of ‘nippled ewers’. Jugs with neck-rings, usually with short, broad channel spouts, have MM III B connections and certainly go back to the late MC period, although found regularly in early LC Kea and Thera.

(Collared, including bridge-spouted)

Atkinson *et al.* 1904, 130–2 Shape 2.

Barber 1974, 38.

Barber 1978, i. 202, ii. 55–6.

617 (255) Φ 11/3 (FIG. 36)

D. c.0.14 (irregular); H. 0.039.

Rim.

White self slip o/s; the rim smoothed i/s.

In streaky black paint: line and stripes on rim; band at rim o/s; on side of collar, zone of ivy leaves/chevrons; band at collar/body junction, another below.

Cf. Barber 1974, 38 no. 78 (MM120), photo.

Dawkins and Droop 1911, pl. viii.

618 (–(MM468)) (PLATE 16)

L. 0.16; H. 0.073.

(Rim) (3 sherds joining); the actual rim surface not extant.

In reddish-brown paint: band at rim/shoulder junction; then two rows of opposed foliates.

Cf. Atkinson *et al.* 1904, pl. xxv. 4–5.

619 (386) Φ 11/K (FIG. 36)

D. c.0.14; H. 0.028.

Rim.

Hard fired.

In streaky red to brown-black paint: dark band on top of and below rim o/s; red band below rim i/s; on body, a zone of filled semi-circles pendent from the rim band, then a cc line and, below, a zone of discs and trace of another cc band.

The combination of pendent rock pattern and filled circle zones is unusual.

620 (689) Φ ?11/E (FIG. 36)

D. 0.25; H. 0.101.

Rim (?of BS jug), with one complete horizontal RSH and handle stumps of another immediately adjacent; the rim wide, concave, and sloping strongly inwards.

In red paint: the concavity of the rim and the handle zone

painted; below, broad zone of TTR then another horizontal band.

Cf. (for close set double handles, though there one seems to be vertical) Atkinson et al. 1904, pl. xxv. 9.

621 (690) Φ ?11/E (FIG. 36).

Part of same vase as 620.

D. 0.25; H. 0.088.

Rim, with handle stumps of horizontal RSH.

622 (—(MM465)) (FIG. 36)

D. (rim) 0.11; H. (preserved) 0.162.

Rim and part body (19 sherds mostly joining), probably of jug; the mouth diameter irregular; traces of handle roots or lugs at three points on the body, at the level of the main spiral zone; the spout missing.

(Jug with cutaway mouth)

Atkinson et al. 1904, 125 and pl. xxiii. 1–4.

Barber 1974, 37 (only no. 142 (MM79) is relevant).

Barber 1978, i. 195, also 204, ii. 51–2, also 62.

623 (222) Φ 11/16 (FIG. 37)

L. 0.05.

Part of mouth; broken at point of junction with body; no part of the rim survives.

In paint, varying from black to streaky brown: parts of two opposed 'fritillaries' (*Atkinson et al. 1904, 126*).

Cf. Atkinson et al. 1904, pl. xxiii. 4.

624 (204) Φ 11/15 and 17 (FIG. 37)

D. ?c.o.12; H. c.o.042.

(Beaked jugs)

Barber 1978, i. 207–8, ii. 66–7.

Barber 2007, 210 (LL).

For other varieties see *Atkinson et al. 1904, 136–7 Shapes 16, 17.*

The LC version of the form is not clearly defined in the discussion of LL pottery in *Atkinson et al. 1904* (cf. *Davis and Cherry 2007, 277 Shape 10*), where the majority of jugs are of the collared type (cf. above), essentially a version of the beaked jug whose 'beak'/spout has become a relatively short, broad, horizontal channel. Other forms are, however, evident on Thera and, on Melos, in the pieces below.

625 (393) Φ 11/24 (PLATE 16)

D. (of neck) c.o.045; H. 0.052.

Neck (2 sherds joining); the spout missing; scar of handle and bits of the rim to either side of the beginning of the spout.

Fabric well-levigated; not far from CW (assigned to LL on grounds of decoration).

In black paint: bits of ?solid loops pendent from the rim then two zones of foliates, tending in opposite directions, either side of a cc line.

For similar decoration on the neck of a jug, almost

Reddish biscuit and surfaces, with plenty of mica visible.

Slipped thick creamy white o/s.

In dark paint (the decoration worn): on neck, wavy line between two narrow cc bands; on shoulder, the same; on the body, the major zone has linked spirals; below, decoration uncertain.

Almost certainly an import from Kea, whose LC local products it closely resembles.

Cf. Cummer and Schofield 1984, 55–6 no. 171 and pl. 48; 96–7 nos. 1100, 1102, and pl. 70 (from LC II deposits).

Uncatalogued: none.

Rim (2 fragments joining), possibly of jug; broad, everted lip; the break at the left may be at the beginning of a handle or spout.

Well levigated, whitish fabric.

In red and black paint: red dots or stripes on top of rim; linked diamonds with dotted centres (all black) on the lip; parts of two red cc bands below; handle or spout outlined?

Uncatalogued: none.

certainly of a different shape, see *Bosanquet and Dawkins 1923, fig. 32.*

626 (225) Φ 11/15 (PLATE 16)

H. c.o.048.

Part mouth of (probably) beaked jug, with RSH attached to rim; only bits of rim next to handle root survive and form of 'beak' uncertain.

In streaky brown-black paint: bars on the handle; loops (?) round the upper neck; below this, thin cc plain, and pendent wavy lines.

The neck decoration seems closer to pieces from

Kea (see references for **622**) than anything from Phylakopi.

627 (228) Φ 11/16 (PLATE 16)

H. c.o.063.

Neck and part of spout of (probably) beaked jug; handle broken off at junction with neck, almost at rim; only back part of rim survives; form of spout uncertain.

In B&R: top of rim painted (black) and the handle root outlined; on the front of the spout, two vertical loops with a burnished red triangular 'bud', outlined in black, in between—part of a larger ?floral motif of which there is a segment below.

Loops are common in B&R (cf. **710** etc., and Atkinson *et al.* 1904, pl. xx. 12, in a different association), but the overall design is unclear.

628 (227) Φ 11/19 (PLATE 16)

L. o.o.88.

Spout and tiny part of neck; broken at junction with body and part of spout missing on right side; the spout channelled and slightly flaring at the tip.

(Jugs with neck-ring)

Atkinson *et al.* 1904, 136 Shape 15. (The form represented below seems to be included under Shape 15 although the references are to illustrations of neck-rings on a different form).

Barber 1974, 40.

Barber 1978, i. 208–9 Shape 8a/213 Shape 2, ii. 68–9/73.

630 (696bis) Φ ?11/E (PLATE 16)

H. c.o.076.

Part mouth, with rim and neck; one plastic 'eye' survives just below the rim.

In black paint: the top of the rim painted; a very thick cc band with, just below, trace of another.

Cf. Barber 1974, 40 no. 238 (MM404) and fig. 7, pl. 6 c–d.

631 (223) Φ 11/15 (FIG. 37)

H. o.o.69.

Part of mouth, with channel spout (broken on one side of tip but apparently not narrowing); plastic 'eyes' at rim to either side; the stump of a broken RSH attached to the rim of the spout; a plastic ring at the neck/body junction.

Pale fabric, quite well levigated.

Very streaky red-brown paint all over o/s, except on

(Bases, perhaps from jugs)

633 (286) Φ 11/17 (FIG. 37)

D. (of base) o.o.58; H. o.o.47.

Base, with ring foot.

In red and black paint: cc wavy line (black) in body-

In dark paint: top of rim painted (black); narrow stripes (reddish-brown) under spout.

The form of the spout is close to that of the flanged CW beaked jug.

A pencilled mark '31' is probably not from the 1911 excavation.

629 (226) Φ 11/12 (PLATE 16)

H. o.o.96.

Part spout and neck; mouth broken on the side towards tip; spout channelled, form of tip uncertain; two shallow plastic studs close together on front of neck.

In red paint: bars on the handle; top of rim painted (worn); one broad stripe under the spout towards the tip; a line under the tip.

Cf. **628**, probably similar spout type; for studs, cf. **469** (CW decorated, jug neck). Under-spout stripes are not common on LL jugs.

Uncatalogued: none.

the neck ring, which has bars; a band inside the spout rim at right hand side only, thickening towards the tip.

Cf. Davis 1986, 20 C-31 (Minoan) and pls. 21, 47; also 58 AA-59 (local) and pl. 62; Cummer and Schofield 1984, 84 no. 829 and pl. 63 (probably Minoan).

632 (224) Φ 11/3 (PLATE 16)

H. o.o.75.

Mouth and part neck, with 'eyes' and neck-ring as **631** above; no handle root surviving; chip on left side of rim near tip.

Coarser fabric, brown with some white grits.

Blackish paint ?all over o/s.

Uncatalogued: 2 small ?spout-rim frags.

Uncatalogued: 1.

foot angle; at least two red stripes (with indefinite black appendages) rise vertically from this at intervals, probably part of a 'tree' motif.

Cf. Atkinson *et al.* 1904, pl. xiv. 2.

634 (287) Φ 11/7 (FIG. 37)

D. (of base) c.o.075; H. o.o71.

Base, with ring foot; slightly defective.

WT.

The outer surface very smooth, possibly self-slipped.

In red and black paint: on the outside of the ring,

black bars; above, two red bands and a slightly wavy black line; above this, on main body, a zone of rosettes (red discs, with black dotted surrounds)—not regularly spaced.

Incised: potmark, on the edge of the base—two vertical slashes, cf. Atkinson *et al.* 1904, 179 A4.

Cf. 688.

*Other bases***635** (282) Φ 11/12 (FIG. 37)

D. (of base) ?c.o.07; H. o.o48.

Base; flat.

The surface white slipped.

In streaky brownish paint: two thick bands at body/base junction, overlapping underneath; underneath, part of a single wavy line?

636 (233) Φ 11/11 (FIG. 37)

D. (of base) c.o.042; H. o.o48.

Base of bowl or jar; base flat, with small perforation (o.o05).

WT.

In reddish-brown paint: round base and overlapping onto the underside, a line; above, another then a zone of thick spirals (or other circular motifs).

Other uncatalogued (from unidentified shapes): 2 rims, a few bases, 1 large undecorated pedestal, 1 small strap handle.

DECORATION

The description of the Later Local class of pottery from the nineteenth century excavations (see section heading for references) and Furumark's analysis (1950) of the LC I-II material from the site remain fundamental. In their publication of LC I material from the 1970s excavations at Phylakopi, Davis and Cherry (2007) illustrate and analyse the range of motifs identified in the course of that work, offering some modifications of ideas put forward by Furumark and suggesting new points of chronological significance. Their use of the seriation technique (*ibid.* 296–304) has produced interesting results and might usefully be applied at other points in the Cycladic sequence.

All pieces described below are LL body sherds with decoration in (now) matt monochrome or red and black paint. In respect of fabric and decoration, only exceptional characteristics are specifically noted. The correct orientation is not always clear.

The definition of the R&B and B&R systems, respectively, are discussed in the section devoted to B&R. R&B pieces are identified not only on grounds of paint, whose original burnish or otherwise is often ambiguous, but also on the separation of the two colours rather than their integration within a single motif, and their similarity to standard LC I motifs and schemes. It should not be forgotten that the classic B&R style is defined largely on the basis of visually prominent red elements outlined in black. The 'Tree' motif is found in this technique but is also common with the red not outlined (here listed with B&R). Flowers of 'friillary' type are mostly assigned to B&R.

'Concentric arcs'

Davis and Cherry 2007, 270 Motif 11 and fig. 7. 2.

Furumark (1950, 195 and n. 2) regarded this form of decoration as close to MM III B, and essentially MC.

637 (442) Φ 11/17 (PLATE 17)

Body sherd of ?strainer: coated black i/s, smoothed dark buff o/s; blackish and reddish paint; two ovoids (one black, one red) within a loop outlined by (?pairs of) double lines with zone of dots (red and black) between each pair.

Cf. no. 616; Atkinson *et al.* 1904, pls. xvi. 9, xxiv. 1–3 and p. 128.Pieces shown on Atkinson *et al.* 1904, pl. xxiv. were said (p. 128) to be "midway between the 'black and red' and 'red and black' techniques".**638** (575) Φ 11/2 (PLATE 17)

Body sherd of?: greyish, white grits; apparently WT; washy brown paint; loops, each containing a solid disc; below, parts of thick streaky bands with narrow reserved area between.

The form of this design is close to no. **637**, although each loop contains only one disc.

639 (728) Φ 11/16 (PLATE 17)

Body sherd of closed vessel: washy brown-red paint; discs overlapping cc band with triple wavy line rising/falling at right angles. Probably = Concentric Arcs.

Uncatalogued: 2.

Multiple wavy line and dots

Cf. Atkinson *et al.* 1904, pls. xxiv. 5, xvi.9. (pl. xxiv. 5 was regarded (p. 129) as intermediate between B&R and R&B); Sherratt 2000, 282, 287, 13.b.i.335, 362 and pls. 442, 458; Cummer and Schofield 1984, 117 and pl. 81 *b* (LC II).

The arcs and dotted infill are related to the preceding motif, but the overall scheme is unclear. **679** shows this element combined with the spiral.

The use of wavy lines/stems and dots is a feature of Betancourt's LM I B 'Standard Tradition' (1985, 137 fig. 103 *b*; see also *infra* 'Other Imports'); cf. Müller 1997, 143 fig. 75.

640 (495) Φ 11/15 (PLATE 17)

Body sherd of closed vessel: thick white slip all over o/s; faded red and blackish paint; cc band (red); below, undulating pairs of wavy lines (black) with, between the pairs, dots (red); perhaps outlined loops (2) with dotted interiors.

641 (502) Φ 11/16 (PLATE 17)

Body sherd of closed vessel; white slip all over o/s; red and blackish paint; part of cc band (red) with, below, undulating pairs of wavy lines (blackish) and, between the pairs, dots (darker); other filling (solid loop?).

Uncatalogued: 1 body sherd (possibly B&R).

Scale pattern

Cf. Atkinson *et al.* 1904, pl. xxix. 7 (dotted); also pl. xviii. 10 (CW).

The motif seems rare.

642 (428) Φ 11/3 (PLATE 17)

Body sherd of large closed vessel: white slipped o/s and on neck i/s, down to upper part of interior; reddish brown paint; a broad zone of scale pattern on the shoulder, framed above and below by a narrow cc band of 'tramlines', the upper at the base

of the neck; below, part of a zone of foliates (?double).

A pencilled mark '18' is unlikely to be from the 1911 season.

Uncatalogued: none.

Flowers and other floral motifs

See individual entries for references.

643, **644** are distinctive and hard to parallel (cf. also no. **656**). The fine wavy stems clearly relate them to some of the vases with flowers in B&R from Phylakopi but the flower/leaf forms are not associated with such stems in any published examples (cf. Pendlebury 1939, 202 fig. 36–6: LM I A).

643 (445) Φ 11/9 and 16 (PLATE 17)

Body sherds (2 joining) of closed vessel (?jug): some red patches i/s; white slipped all over o/s; faded black paint; diamond-shaped leaf (?ivy) with wavy stem, thin wavy tendrils.

Cf. Atkinson *et al.* 1904, pl. xxiii. 2, 4 (for wavystems). Perhaps related to FM 12 (Entire Ornament 3, Vertical Branch; LH II A).

644 (446) Φ 11/16 (PLATE 17)

Body sherd of closed vessel, perhaps the same as **643**; the surface abraded in places; white slipped all over o/s; faded black paint; stem with rounded leaves; part of ?'fritillary' (Atkinson *et al.* 1904, 126).

645 (444) Φ 11/16 (PLATE 17)

Body sherd, probably of closed vessel: white slipped

o/s; brown-black streaky paint; part of cc ?neck band with, below, rounded (?ivy) leaf and tendrils. Cf. Popham 1967, 338 fig. 1, no. 10: LM I A.

Probably to be associated with FM 12 (Entire Ornament 6, Alternating Spray; LH I).

646 (576) Φ 11/14 (PLATE 17)

Body sherd of small ?closed vessel: washy brown-black paint; at top (?), uncertain motif, then, horizontal 'tramline' with, below, stemmed ivy-leaf (probably angle-filling) and part of ?spiral.

Cf. Atkinson *et al.* 1904, pl. xxviii. 1 (similar form but unrelated to spiral); pl. xxviii. 2 *b* (in similar position).

647 (722) Φ 11/K (PLATE 17)

Body sherd of ? part of flower (red) consisting of adjacent loops with dotted filling.

Cf. Atkinson *et al.* 1904, pl. xxviii. 16 *b*, also 12, 16 *a*.

648 (723) Φ 11/16 (PLATE 17)

Body sherd of ? black paint; bits of curvilinear elements. The most prominent resembles an irregular lozenge with crude filling, possibly like the upper part of the floral element on Atkinson *et*

al. 1904, pl. xxviii. 16 *b* (top right); cf. also Sherratt 2000, 252, 13.b.i.149 and pl. 353 (CW). Another possibility is that this is part of a marine motif (cf. **472**, **474** CW), since it closely resembles an element of the triton shell design on Müller 1997, 210 fig. 120, no. Pam 99(1).

649 (574) Φ 11/2 (PLATE 17)

Body sherd of closed vessel: bichrome effect (core of flower is red, also parts of exterior lines of diamond, the rest black) perhaps created by differential firing. A spiked diamond shape (?interstice filling), itself outlined, with a flower/rosette formed of a filled circle surrounded by four inward-facing semicircles.

Cf. Atkinson *et al.* 1904, 126 fig. 96, for flowers/rosettes in field. Perhaps related to a version of the crocus flower (FM 10-4: LH I).

Possibly to be assigned to B&R, by association with Atkinson *et al.* 1904, fig. 96.

Note also in shape catalogue **560**, **564-5**, **589**, **623**.

Uncatalogued: 10.

Spiral flower

650 (443) Φ 11/16 (PLATE 17)

Body sherd of closed vase: brown-black paint; spiral flower consisting of double spiral with 4 stamens protruding.

Cf. Atkinson *et al.* 1904, 131 with fig. 101, pls. xxiv.

9 (light-on-dark), xxix. 13; Davis and Cherry 2007, 270 Motif 3 (Lily) and fig. 7. 1, 289 P888 and pl. 35 *c*.

Uncatalogued: 3.

Ivy leaf chain (see also Simplified ivy-leaf filling)

Davis and Cherry 2007, 270 Motif 4 and fig. 7. 1.

Cf. Sherratt 2000, 296, 13.b.i.423 and pl. 494; Atkinson *et al.* 1904, 132 fig. 102; Cummer and Schofield 1984, 83 no. 816 and pl. 61 (none lacerated).

651 (725) Φ 11/16 (PLATE 17)

Body sherd of ? probably lacerated version of ivy-leaf chain.

652 (823) Φ 11/3 (PLATE 17)

Body sherd of cup: white slip o/s; between two cc bands, zone of ivy leaves.

Note also in shape catalogue **617**.

Uncatalogued: none.

Grass/reed pattern

Davis and Cherry 2007, 270 Motif 5 and fig. 7. 1.

Cf. Atkinson *et al.* 1904, pl. xix. 9, 10; Barber 1974, 33, 38, nos. 40 (MM94) and fig. 6, 153 (MM99), photos. Dawkins and Droop 1911, pl. viii; for grasses as subsidiary element, Atkinson *et al.* 1904, pl. xxiii.

Common in LM I A: Popham 1967, 338 figs. 1-8; Pendlebury 1939, 202 figs. 36-7.

653 (729) Φ 11/9 (PLATE 17)

Body sherd of ?; black paint; rising from a cc band, curving grasses spreading from thickish stems.

654 (731) Φ 11/9 (PLATE 17)

Body sherd of ?cup: red paint; bunch of relatively thick, short, straight, grasses, with parts of other elements (other bunches?) to either side.

655 (730) Φ 11/17 (PLATE 17)

Body sherd of ?; white slipped o/s; red paint; curving grasses spreading from upright stems of similar thickness.

Note also in shape catalogue **523**, **574**, **577**, **589**, **594**, **596**, **602**.

Uncatalogued: 46 (4 × 2 joining).

'Tree' pattern

Most examples have been assigned to the B&R style (**716** etc.).

656 (577) Φ 11/15 (PLATE 17)

Body sherd of closed vessel: washy pale brown paint; 'tree' with slender stem and symmetrically protruding leaves on either side; part of a second ?similar.

The paint and style and the short, regularly spaced, leaves recall several Theran pieces: Marinatos

1968–76, ii, col. pl. D8, right and left (= Marinatos 1968–76, iii, pl. 52. 1); Marinatos 1968–76, iii, pl. 48. 1; cf. also Marinatos 1968–76, ii, pl. 31. 2.

Note also in shape catalogue **633**.

Uncatalogued: none.

Tortoiseshell ripple (TTR)

Davis and Cherry 2007, 271 Motif 25 and fig. 7. 2.
Popham 1967, 338 fig. 1–1: LM I A.

The motif is very common on early LL vases, especially rhyta and Vafio cups, as are the variations in linear quality illustrated in the pieces below.

657 (430) Φ 11/24 (PLATE 18)

Body sherd of ?rhyton: white slipped o/s; blackish paint; between two cc bands (trace of a third), TTR. Cf. Dawkins and Droop 1911, pl. xiv. no. 17.

A pencilled mark '10' is unlikely to be from the 1911 excavation.

658 (429) Φ 11/24 (PLATE 18)

Body sherd of large vessel (?pithoid jar): grey fabric, quite fine and near LCW, but assigned here on grounds of decoration; blackish paint; between

two thick cc bands, very crude TTR (not much more than straight lines).

Cf. Atkinson *et al.* 1904, pl. xxv. 10 (Vafio cup).

Note also in shape catalogue **479–81**, **483–4**, **496**, **518**, **519** (straight), **606**, **611**, **615**?

Uncatalogued: 70 (A number of these sherds have quite fine greyish fabric. Several are well-fired and appear to be WT).

Abstract zonal elements:

These are often found in secondary zones and in combination.

Foliate (single and double); crescents

Furumark 1950, 197 n. 5 (foliate band), n. 6 (crescent zone).

Davis and Cherry 2007, 270 Motifs 20, 23 and fig. 7. 2.

These patterns are very common and sometimes (e.g. **659**) the distinction between them is uncertain.

Cf. Atkinson *et al.* 1904, pls. xxv. 10, 11, xxvii. 6; Barber 1974, 38 nos. 188 (MM228), 143 (MM131), photos. Dawkins and Droop 1911, pl. x.

659 (433) Φ 11/3 (PLATE 18)

Body sherd of ?SG cup: reddish paint; between two thick cc bands, crude crescents.

660 (434) Φ 11/3 (PLATE 18)

Body sherd of ?SG cup: blackish paint; between two thick cc bands, foliates.

661 (432) Φ 11/3 (PLATE 18)

Body sherd, perhaps of BSJ: blackish paint; between thick cc bands, foliates.

(Foliate with 'tramline')

663 (821) Φ 11/16 (PLATE 18)

Body sherd of closed vessel: white slipped o/s; blackish paint; horizontal cc 'tramline' between bands with, below, zone of double foliates.

664 (822) Φ 11/3 (PLATE 18)

Body sherd of cup: WT; horizontal cc 'tramline' above single row of foliates and cc band.

Discs/dots

Disc zones, defined by red lines, are standard in R&B style decoration, being particularly common on SG cups and bridge-spouted jars.

Cf. Atkinson *et al.* 1904, pl. xxvi. 9; Barber 1974, 38 nos. 84 (MM75), 186 (MM132), photos. Dawkins and Droop 1911, pl. x; 39 no. 182 (MM153), photo. Dawkins and Droop 1911, pl. ix.

665 (494) Φ 11/15 (PLATE 18)

Body sherd of closed vessel: red and black paint; cc band (red) with, rising from it, coarse stems of ?grasses; immediately above the band and to either side of the bottom of the grass stem, a line of black discs.

666 (564) Φ 11/16 (PLATE 18)

Body sherd of ?closed vessel: parts of two zones of decoration (black), separated by a thick red cc

662 (431) Φ 11/3 and AK (PLATE 18)

Body sherds (2 joining but not mended) of large vessel; orientation uncertain: pale slip o/s; reddish and black paint; at bottom (?), parts of 3 thick cc bands; above these, zone of double foliates; above again, thick cc band with thin curving black line (edge of circle or part of wavy line) overlapping onto it.

Note also in shape catalogue 491, 493, 499-500, 508, 533 (radiating), 554, 570, 575, 618, 625.

Uncatalogued (all foliates): 46, including 3 joining.

band; above, disc(s); below, wavy line (unusual U-shaped waves; cf. Atkinson *et al.* 1904, pl. xxvi. 7, also xi. 3, the latter SMP).

Note also in shape catalogue 495, 504, 511-12, 514, 517, 525 (single disc in circle), 534-5 (radiating), 546, 577, 581-2, 598, 613-14, 619.

Uncatalogued (Discs): 15, including 1 base.

Crosshatch, wavy line/zigzag

For crosshatch, see Furumark 1950, 197 and n. 7, Davis and Cherry 2007, 270 Motif 16 *a* (Diaper net) and fig. 7. 2; for wavy line, Furumark 1950, 197 and n. 8 (e.g. Barber 1974, 37 no. 142 (MM79), photo. Dawkins and Droop 1911, pl. iii); also, perhaps, Davis and Cherry 2007, 271 Motif 31 *a* (Bracket pattern) and fig. 7. 2).

667 (441) Φ 11/15 (PLATE 18)

Body sherd from neck of jar: brittle fabric; white slipped o/s; blackish paint; three zones divided by cc lines—dots, crosshatch, foliates.

Cf. 668 (same decorative structure; different elements, except for crosshatch).

For dots/discs see Furumark 1950, 197 n. 6.

668 (440) Φ 11/9 (PLATE 18)

Body sherd from neck of jug or jar: white slipped o/s; blackish paint; cc band at neck with, below,

zone of crosshatch overlapping onto neck band; cc band with pendent wavy line; below, traces of other motifs, including simplified ivy-leaf (cf. 685 etc), which might belong to the angle filling of a spiral zone, although the motif usually seems to be set at the bottom of such zones.

The scheme is probably as Barber 1974, 38 no. 153 (MM99), photo. Dawkins and Droop 1911, pl. viii, with the addition of the ivy-leaf element.

669 (563) Φ 11/15 (FIG. 37)

Body sherd from shoulder and neck of round-mouthed jug; red and black paint; at bottom of neck/top of shoulder, zone of black crosshatch between red bands; below this, part of a zone of foliates.

For crosshatch and foliates in combination, cf. Barber 1974, 39 no. 182 (MM153), photo. Dawkins and Droop 1911, pl. ix (on belly of pithos).

670 (734) Φ 11/15 (PLATE 18)

Body sherd of ?; faded black paint; crosshatch zone between cc bands; below, a circular motif with dotted interior.

671 (735) Φ 11/15 (PLATE 18)

Body sherd of ?; red paint, very slightly glossy; crosshatch zone, with foliate zone below.

672 (727) Φ 11/K (PLATE 18)

Body sherd of ?; indeterminate motifs (?forming flower) including crosshatch.

For narrow curving crosshatch cf. Atkinson *et al.* 1904, pl. xxiii. 7.

Spirals

Spiral types ('the most common zonal motif used as main decoration is the running spiral') are discussed by Furumark (1950, 196 and nn. 1-2, 197 and nn. 1, 2 (earlier and later Cretan types, Meander, Medallion)); Davis and Cherry 2007, 270 Motif 12 and fig. 7. 2.

676 (435) Φ 11/7 (PLATE 18)

Body sherds (3, of which 2 join and the third may belong to the same vase) of closed vessel: WT; the two joined sherds red (mostly) and black paint; parts of two red spirals, from a large zone, with centres consisting of discs with dotted surrounds (black); the outer ring of one spiral overlaps onto the thick cc band below; angle filling (black) is a double simplified 'ivy leaf' (see below).

Cf. Atkinson *et al.* 1904, pl. xxv. 4 (upper zone); also (cruder) Barber 1974, 37 no. 87 (MM133), photo. Dawkins and Droop 1911, pl. iii.

677 (436) Φ 11/15 (PLATE 18)

Body sherds (2 joining) of ?BSJ; apparently WT; red and black (dots, crosshatch, ivy leaves) paint; parts of three zones, divided by cc bands: (i, top) ornate rectangles with central crosses and ivy leaf filling separated by double vertical lines filled with row of dots; (ii) crosshatch; (iii) very simplified spirals with centres and filling. Similar to no. **676** (435) except: the central discs here are red, the spiral coil is restricted to a single circle, and the fillings consists of single large leaves.

673 (562) Φ 11/3 (PLATE 18)

Body sherd of small vessel: orientation uncertain; WT; red and black paint; red foliates then, between two black cc lines, wavy band.

674 (732) Φ 11/15 (PLATE 18)

Body sherd of ?cup: parts of 3 cc wavy lines (1 black between 2 red).

675 (733) Φ 11/17 (PLATE 18)

Sherd from neck of ?jug: wavy line pendent from cc band (both red); then bits of another motif (black).

Note also in shape catalogue: (crosshatch) **491**, **493**, **515** (underneath), **531**, **551**, **574**, **593**, **598-9** (vertical), **601**, **733** (HP); (wavy line) **490**, **495**, **500**, **503**, **506**, **507**, **509**, **511**, **514**, **516**, **524**, **525?**, **526**, **531**, **541**, **543-4**, **547**, **560**, **562-3**, **567**, **573-4**, **585**, **588**, **593**, **595** (unnumbered), **599**, **607**, **622**, **626**, **633**.

Uncatalogued: crosshatch 7, wavy line/zigzag 8.

Cf. Atkinson *et al.* 1904, pl. xxix. 4 (exactly similar motifs but in different order); Barber 1974, 38 no. 78 (MM120), photo. Dawkins and Droop 1911, pl. viii. (for spirals and crosshatch on shoulder of BS jug).

678 (437) Φ 11/7 (PLATE 18)

Body sherd, perhaps of BSJ; WT; red and black paint; below, parts of two cc bands (the upper thick) with, in between, discs, then large zone of spirals with 3-dot rosettes as angle filling (the dots/circles are black, the rest red).

Cf. no. **459** (CW). For 3-dot rosette cf. Sherratt 2000, 284, 13.b.i.349 (?) and pl. 439, 13.b.i.351 and fig. 202, pl. 439.

679 (438) Φ 11/7 (PLATE 18)

Body sherd of closed vessel: red and black paint; complex of cc bands, spirals (?), wavy lines, dots and ivy leaves.

Cf. Atkinson *et al.* 1904, pl. xxix. 4; Sherratt 2000, 280, 13.b.i.325 and pl. 439; also, above, 'Multiple wavy line and dots', though the combination of that element with spirals is uncommon.

680 (565bis) Φ 11/16 (PLATE 18)

Body sherd of large, thin-walled, ?closed vessel: WT; streaky matt brown-black paint; part of (presumed) zone of spirals with unique central filling—the circular centre contains a double-line cross; within each quarter a filled semicircle rises from the outline. The tangential connecting element is a double wavy line; bit of rosette filling survives.

681 (427) Φ 11/3 (PLATE 18)

Body sherd of large closed vessel, possibly a BS jug; white slipped all over o/s, also inside neck, down to upper part of interior; black paint (monochrome); (in descending order) on neck, part of ?double row of crescents or foliates; then, double cc lines, single row of foliates, double cc lines, linked simplified spirals, double cc band (thicker); bit of large circular motif or coarse wavy band from the zone below overlaps onto the lower of the bands. The undecorated parts of the surface from the second pair of lines downwards seem to have been filled in with a light grey colouring.

682 (448) Φ 11/16 (PLATE 18)

Body sherd of very large vessel, perhaps a basin: the surface abraded in places; the orientation uncertain; white slip; black and reddish-brown

Angle-filling ornaments:

Rectilinear interstice

The scheme is a simplified form of that seen on Sherratt 2000, 287, 13.b.i.362 and pl. 458.

684 (721) Φ 11/16 (PLATE 19)

Body sherd of?: brown-black paint; part of interstice/angle filling (double side-lines and double diagonal divider, with single disc to either side) between dot-filled running circles, perhaps simplified spirals.

Simplified ivy-leaf

Furumark 1950, 197 and n. 14, also Davis and Cherry 2007, 270 Motif 13 *e* (Running spiral accessories) and fig. 7. 2.

Cf. also 668, 676–7, 679.

685 (726) Φ 11/15 (PLATE 19)

Body sherd of?: black paint; multiple simplified ivy-leaf filling of 'christmas tree' type.

686 (724) Φ 11/15 (PLATE 19)

Body sherd of?: black paint; above thick cc band, to right, edge of ?spiral; to left, two elements of multiple ivy-leaf, as 685 but squatter.

Cf. Atkinson *et al.* 1904, pls. xxix. 9, xxv. 4.

687 (599) Φ 11/17 (FIG. 37; PLATE 19)

Body sherd of closed vessel: reddish to black

paint; part of a (presumed) spiral of meander type with thick white interior zones, outlined in black, then a broad band (red-brown); in a light zone between the two, a small rosette consisting of a black disc outlined with red dots (?angle filling).

Cf. Cummer and Schofield 1984, 79 no. 670 and pl. 59; Atkinson *et al.* 1904, pl. xxvi. 1 and Barber 1974, 38 no. 141 (MM127), photo. Dawkins and Droop 1911, pl. x. (spiral type); for rosettes, Atkinson *et al.* 1904, pls. xvi. 8 (CW), xxv. 5, the former closer in style but only the second associated with a spiral. No parallel for the combination of rosette and meander spiral.

683 (717) Φ 11/11 (PLATE 18)

Body sherd of closed vessel: white slip o/s; red-brown paint; part of meander-type spiral.

Cf. Atkinson *et al.* 1904, pl. xxv. 9.

Note also in shape catalogue 482, 490, 492, 494, 497, 502–4, 510, 517, 542, 544, 558–9, 577, 580 (or concentric circles), 607–9, 622.

Uncatalogued: (small vessels, mostly SG cups, one or two close to CW) 51; (large or coarser vessels) 62.

Uncatalogued: none of this type, but see following entry.

paint; parts of 2 cc bands (the upper very thick) with, above, parts of running spirals with triangular angle filling (?ivy leaf).

Cf. Atkinson *et al.* 1904, pl. xxvi. 1 (for filling motif). Conceivably a Minoan import.

Note also in shape catalogue 542.

Uncatalogued: none, but one or two are found in combination with other motifs.

Other motifs:

*Rosette***688** (301) Φ 11/15 (PLATE 19)

Body sherd of ?SG cup: zone of black rosettes (discs with multi-dotted surrounds); below, between two thickish cc red bands, wavy line.

Cf. **634** (different colour arrangement); Atkinson *et al.* 1904, pl. xiv. 1 (nipple on ewer); Davis and Cherry 2007, 270 Motif 7 *a* and fig. 7. 1.

Note also in shape catalogue **507** (8-dot), **509**, **577**, **634**.

Uncatalogued: none.

*Elaborate triangle (?)***689** (736) Φ 11/16 (PLATE 19)

Sherd from neck of jug: upper part, probably of elaborate triangle (black), with filling, pendent from ?neck band (red); a plastic stud (cf. **502**, SG cup), within the triangle, is slightly overlapped by one of the painted sides.

Cf. Atkinson *et al.* 1904, pl. xiv. 8 for triangle pendent from cc band. The main motif is of MC type (cf. **447** etc., CW).

Uncatalogued: none.

Broad linear style

Possibly related to Atkinson *et al.* 1904, pl. xx. 1 (B&R); also, and rather confusingly, recalls the thick light-on-dark Geometric group (cf. Sherratt 2000, 236, 13.b i.72 and fig. 147, pl. 312 and, perhaps, Atkinson *et al.* 1904, pl. xii. 22 (SMP)).

690 (479) Φ 11/16 (PLATE 19)

Body sherd of closed vessel: orientation uncertain; ?neck band (black), oblique and horizontal bands (both red) with (black) part of wavy line and ?other curvilinear element.

691 (720) Φ 11/16 (PLATE 19)

Body sherd of closed vessel: horizontal band and pendent vertical line (red) with (black), to left and right of the vertical, traces of curvilinear motifs (two to the left, one to the right).

Similar in style to **690** but from a different vase.

Uncatalogued: none.

MC-related

The following pieces are LL in technique but the motifs are more characteristic of CW decoration:

692 (449) Φ 11/17 (PLATE 19)

Body sherd of closed vessel (?jug): pinkish fabric, quite hard fired, LL?; thick white slip o/s; thick black and red-brown paint (CW quality); parts of two broad cc bands with, between, discs linked by double curling lines in a running sub-spiral pattern; below, two curving lines are part of another circular motif (?spiral).

Cf. Barber 2007, 186 no. 4 and fig. 6. 1, pl. 24 *a* (DB); Buck 1964, Motifs 115–16 (one of the pieces listed is from the second MH building level at Eutresis).

693 (450) Φ 11/17 (PLATE 19)

Body sherds (5 joining) of very large vessel: fabric similar to **692**; black and red-brown paint; thick cc band (red), zone of running quirk (black).

Cf. (quirk) Atkinson *et al.* 1904, pls. xviii. 11 (CW), xxvi. 16 (LL); Buck 1964, Motif 105.

The style is unmistakably early Curvilinear.

694 (489/737) Φ 11/9 (PLATE 19)

2 sherds (not joining) of closed vessel: below band of wavy line (red), vertical rows of isolated and interlocking squiggles (black), then cc line with curvilinear appendage (both black).

Cf. (for the squiggles) possibly Atkinson *et al.* 1904, pl. xiii. 7. The quirk pattern generally is often found in CW: *ibid.* pl. xviii. 11, 19, though it is hard to parallel the vertical setting and abbreviated form. Isolated linear motifs are most characteristic of SMP (Atkinson *et al.* 1904, pls. xi–xiii); for the style of wavy line: Barber 1974, 38 no. 153

(MM99), photo. Dawkins and Droop 1911, pl. viii (LL).

The wavy line seems to secure the dating of **694** to the LC period.

No. (489) bears a number '110' that cannot be from the 1911 excavation.

Uncatalogued: none.

Other uncatalogued: 7 patterned sherds with unidentified motifs; undecorated sherds and sherds with indeterminate rectilinear and curvilinear elements. Not counted.

Other uncatalogued: 47 sherds including examples of common motifs such as TTR, foliate bands, spirals, discs; 50 sherds with elements of rectilinear and curvilinear decoration only (interior and exterior).

The following motifs are represented in the shape catalogue but not among the decorated sherds: fish/dolphin **536** (eye); leaf **501**; circle? **580**; semicircle **484**, **549** (both underneath); **543** (broad-lined, double, pendent); loops (solid) **619**, **625** (both pendent from lip); chevrons **498** (light-on-dark zone); diamonds **624** (linked, with dotted interiors); swastika **512-13**, **515**, **557**; droplets? **516**; stripes/bars **525** (group on rim of IRB), **628** (looped under beak of jug); bracket **527-8**; 'rosette' of arcade type **532**, **535**, **548**, **551-2**; rosette (dots) as angle-filling **577**.

In addition to the above there are c.130 sherds with identifiable motifs, which are with the uncatalogued material stored by shape. Among these are several examples of all of the following: crosshatch, stripes, wavy line, TTR, discs /dots, spiral, swastika, TTR, also cross, line, or spiral on bases of SG cups or BSJs; and one or two examples of: foliates/crescents, quirk, rosette.

POTMARKS

The following have been noted in the catalogue as possible or certain potmarks: **582**, **634**.

BLACK AND RED STYLE

Atkinson *et al.* 1904, 118-29.

Furumark 1941, 220-2.

Furumark 1950, 195.

Barber 1974, 35-6.

Barber 1978, i. 189-95, ii. 49-52.

Sherratt 2000, 263-66 (see also 278 for R&B and 287-8 for Monochrome).

This class was described in the 1904 report under the heading 'Pottery of the Early Mycenaean Period with Designs in Black and Red'. Separate treatment is justified on the grounds of its distinctive technique and the fact that the motifs used are often confined to this category.

FABRIC

The style is found on both CW and LL fabrics. Because much of it belong to the period of transition from the one to the other, it is often difficult to be sure to which fabric class a piece should be assigned.

DECORATIVE TECHNIQUES

Both the original excavators (Atkinson *et al.* 1904, 118) and Furumark (1941, 220, 222), who followed them, described the technique as involving the use of black and red elements of which the black, matt and similar in paint-quality to that of 'Cycladic White' decoration, is used for the main design, while the red, 'frequently' burnished, is employed as a filling colour, especially between cc bands and in the circles which often form the cores of pictorialized motifs (birds, pomegranates etc.).

The technique is also found in a prominent group of vases decorated with flowers (the main motif in black, the stamens in red). This group, however, sees a transition (Atkinson *et al.* 1904, 125, also 128-9; Furumark 1950, 195 and n. 3) to the R&B style. None of the pieces involve the use of red discs or of burnished red

bands outlined with black, and some difference in technique, including decline of the 'red' areas into 'a blackish brown hue', had been noted in the original publication (Atkinson *et al.* 1904, 125). From the vases referred to by Furumark, it is clear that his 'late' stage comprises those of the vases discussed in the original report (and others found in 1911) which are decorated, in a modified B&R technique, with MM III B-type flowers ('fritillaries') in a relatively naturalistic 'all-over' composition, whereas the transitional group, involve similar flowers associated with other motifs (hatched wavy line, grasses, rosettes, swastikas) in more formal, often paratactic, compositions—sometimes with the colour system reversed. The contrast is conveniently seen in Atkinson *et al.* 1904, figs. 96 (p. 126, B&R) and 97 (p. 127, Transitional); also pl. xxiii, on which nos. 2 and 5 are assigned to the late B&R style, whereas 1 and 3 are transitional.

As was rightly pointed out in the 1911 report (Dawkins and Droop 1911, 10–11), the R&B style is associated with the strongly Minoanizing characteristics of LC I pottery, as are the transitional aspects referred to above. Technically the R&B style consists (Atkinson *et al.* 1904, 129) of 'vases which have the main part of the design painted in lustrous colour [though not, it should be pointed out, the often brilliant red of the earlier style] and some details added in matt black'. Side by side with this developed a local monochrome style.

As noted in the introduction to the Later Local section, and as was the case with the 'lustrous' (EMP) and 'matt-painted' (SMP) Geometric wares of the E and MC periods, the distinction between lustrous and matt paint is now often hard to establish in the Red and Black category.

Although the essential differences between the two decorative styles are clear, the difficulty of distinguishing between B&R and R&B at the margins are illustrated by comments in Atkinson *et al.* 1904 (128–9, figs. 99–100 and pl. xxiv. 1–5). Problems arise especially when the red was not burnished or has lost its gloss with the passage of time. A helpful guide is the general rule that, in B&R, the red elements are normally enclosed by black not, as in R&B, simply used side by side.

DISTRIBUTION AND CHRONOLOGY

In the Cyclades, most finds are from Melos, though there are pieces also from Kea and Thera. Others have been found on both Crete and the Greek mainland. The technique appears also to have been used independently on the Mainland (see below on 728).

For finds outside Melos:

Barber 1974, 35; 1978 i, 192–4.

Sherratt 2000, 264 and nn. 46, 47.

Overbeck 1989b, 11, 79 AH–28 and pl. 53 (probable); 135 BG–13 and pl. 70; 139 BJ–1 and pl. 71; 148 BW–2a–b and pl. 73; 191 (and 201) 8–3 and pl. 92.

Davis 1986, 83–4, 11 A–7–9 and pl. 45; 19 C–18–19 and pls. 22, 46; 58 AA–71 and pls. 33, 62; 64 AF–5 and pl. 84.

Cummer and Schofield 1984, 47, 142; see also p. 85 (Polychrome matt-painted) and pl. 64, especially *b*, which shows a motif represented in B&R amongst the Phylakopi material (728).

As Furumark suggested, the beginnings of B&R should be contemporary with the early Curvilinear style (early MC), a view which is confirmed by the style and fine CW fabric quality of some pieces (e.g. 727, 730), also by several finds from Period IV on Kea.

Furumark's identification (1950, 195 and nn. 2–3), with examples although without full discussion, of late and transitional stages of the B&R style were accompanied by the comment (*ibid.*) that a few of them 'are decorated in the spirit of the preceding period [viz. MC III = late Phylakopi II] and stand close to the MM III B style' whereas the rest 'belong stylistically together with the "Red and Black" ware' and thus to LC I (Phylakopi III-i).

It can be inferred from the above (1) that later MC (Phylakopi II-iii) was the most prolific period for the style and (2) that true B&R did not outlast Phylakopi II. More recent evidence (Davis and Cherry 2007, 266 and references), however, suggests that it may have continued, to some extent, into LC times.

Note (i) that a few B&R sherds are catalogued by shape with the CW and LL classes above and (ii) that some pieces with only one colour surviving are included where their attribution to the style seems clear.

Dolphins

Fish (presumably including dolphins) are said (Atkinson *et al.* 1904, 121) to be a favourite subject in B&R vase decoration, though only two are illustrated (Atkinson *et al.* 1904, 121 and fig. 93, pl. xxi. 15)

For dolphins in Aegean art from MM II B–III, see Furumark 1941, 137 and 676 (index).

The pieces below seem not unlike Minoan types in various respects (cf. Evans 1921–36, i, fig. 447 *b*, Pakhyammos: MM III). The representation of the eye however is rather different, though not far from that on the Knossos Dolphin fresco (ibid. fig. 394, MM III?).

The Theran creatures (Marinatos 1968–76, v, pl. C; vi, pls. 80–1) are not closely similar, though this is partly due to differences in technique.

695 (498) Φ 11/16 (PLATE 20)

Body sherd ?of BSJ; LL; hard fired, dark buff surfaces; part head of dolphin with, opposite, parts of loops, presumably of a series, perhaps radiating round a circle (no red survives).

Cf. Barber 2007, 197 no. 67 and fig. 6. 5 (CW) for dolphin; loops are often found in the B&R style (Atkinson *et al.* 1904, pl. xx. 12; and see 710 etc.). The composition here is uncertain but could resemble that of ibid. 119, fig. 91.

696 (–(MM456)) (PLATE 20)

Body sherds (3 joining) of large closed vessel: LL/LCW; the exterior ?light slipped; in red outlined with black (the red has lost most of its original lustre), a snub-nosed dolphin, with large black eye, rests its nose on another motif (?part of the tail of a companion, or a fish as Atkinson *et al.* 1904, pl. xxi. 15, right). There is a reserved ovoid

patch in the middle of the nose and a thick dribble of red paint below. Although the technique is different, the form of the creature resembles that of **695**.

Cf. 732 for style, possibly also for motif.

697 (–(MM470)) (PLATE 20)

Body sherd of large closed vessel: LCW; part of a red, apparently circular, element, thickly outlined in black (the 'red' is purplish and has lost its lustre). In its centre is an eye (?of a dolphin) formed of a disc surrounded by a thin reserved circle, itself outlined in black. There appear to be traces of white over the black.

For form of eye, cf. Atkinson *et al.* 1904, pl. xxi. 1; also the Fisherman vase (ibid. 124, fig. 95).

Uncatalogued: none.

Large circle-based patterns—pictorial:

Birds

Atkinson *et al.* 1904, 120.

Furumark 1941, 222.

698 (468) Φ 11/16 (PLATE 20)

Body sherd of thin-walled closed vessel: LL; ?self slipped; large part of red circle, outlined in black, attached to it parts of the legs of a bird.

Cf. Atkinson *et al.* 1904, pl. xxi. 1.

A pencilled mark '15' is unlikely to be from the 1911 series.

699 (469) Φ 11/16 (PLATE 20)

Body sherd of thick-walled closed vessel: LL; slipped white o/s; bit of outline of presumed red

circle (no colour survives), two bird's legs, almost complete; traces of other motifs to the left.

Note that **415** (CW) may have a B&R bird: although none of the red body survives, the neck decoration shows that the vase belongs to the B&R style.

Uncatalogued: 8 (4 show substantial bits of birds' bodies).

Pomegranate

Cf. Atkinson *et al.* 1904, 121–2, pl. xxi. 4.

The pomegranate motif seems to be a Cycladic invention.

700 (454) Φ 11/16 (PLATE 20)

Body sherd of large closed vessel (?jug): LL; heavy, pinkish fabric with some marble inclusions;

pomegranate, in red with black double outline and appendages.

Cf. also Atkinson *et al.* 1904, pl. xx. 14 (B&R on CW).

701 (455) Φ 11/16 (PLATE 20)

Body sherd of closed vessel (?jug); LL; pomegranate; the 'red' is a very thick, glossy purple.

Circle-based patterns—abstract:

Red circles, often surrounded by radiating patterns of varying complexity are common, usually forming a continuous zone round the vessel.

702 (456) Φ 11/3 (PLATE 20)

Body sherd of closed vessel (?jug): LL; part of red circle with double black outline; the outer part of the outline linked to the beginning of another, presumably belonging to a cc zone.

Probably as Atkinson *et al.* 1904, pl. xx. 5; cf. Davis 1986, 64 AF-5 and pl. 64 (Melian import).

A pencilled mark '15' (the '5' not too distinct) is not likely to be from the 1911 excavation.

703 (447) Φ 11/9 (PLATE 20)

Body sherd of closed vessel (?jug): LL; perhaps slipped o/s; faded black and red paint, possibly B&R; stem with tendrils and leaves (all black); to either side and probably alternating (parts of) small red discs in the centres of black circles.

Cf. Atkinson *et al.* 1904, pl. xxiii. 2, 4, for stems. The B&R motif can be compared to the common outlined circles (e.g. Atkinson *et al.* 1904, pl. xx. 14) and alternation of elements is not uncommon in this style, but the size of the discs is unusually small.

A somewhat similar (and similarly unusual) piece comes from the Cave of Zas on Naxos, to be published by the writer on behalf of the excavators, Dr Angelika Douzougli and Dr Kostantinos Zakhos.

704 (451) Φ 11/16 (PLATE 20)

Body sherds (2 joining) of closed vessel (?small jug); a protrusion on the inner surface (there is a break at this point in the outer) may be the end of a partially thrust handle: LL; red circle outlined in black, itself circled by a wide zone containing pointed ovals with interior discs and solid semicircles protruding inwards from the outer edge of the zone; below, part of a circular motif in the form of a red filling between two black curving lines; trace of further red circle within innermost line.

There is no parallel for such a wide surround or for this arrangement of motifs, although the individual elements are well-known.

Cf. Atkinson *et al.* 1904, pls. xiv. 3 (not zonal), 7, xv.

A pencilled mark '15' is unlikely to be from the 1911 excavation.

Uncatalogued: none.

9, 17, 20 (all CW)—no. 9 has a composition of ovals and semicircles though neither is filled.

Pointed ovals are an early Curvilinear style feature (cf. **436** etc., CW) and, in spite of the LL assignation of the fabric, this is surely an early piece.

705 (452) Φ 11/3 (PLATE 20)

Body sherd of closed vessel (?jug), possibly the same vase as **704**; LL; part of a composition similar to **704** but two of the four surviving ovals are opposed to the other pair.

706 (458) Φ 11/16 (PLATE 20)

Body sherd of closed vessel (?jug); LL; red circle outlined in black, with radiating curly-stemmed foliates (cf. those on the 'tree' on Atkinson *et al.* 1904, pl. xx. 16, differently arranged); trace of band on shoulder/neck and ?of another motif.

Cf. Overbeck 1989b, 191 8–3 and pl. 92, which seems to show a similar radiating pattern (early MC).

707 (457) Φ 11/16 (PLATE 20)

Body sherd of closed vessel: LCW/LL; whitish, quite fine fabric; well-smoothed o/s; red circle with protruding solid ovals radiating.

Cf. Atkinson *et al.* 1904, pl. xx. 13.

708 (766) Φ 11/19 (PLATE 20)

Body sherd of ? : CW; thin curving cc band; 4 elongated ovals, probably belonging to missing red circle, as no. **395** (CW) and Atkinson *et al.* 1904, pl. xx. 13.

Such ovals are common.

A pencilled number '16' is unlikely to be from the 1911 excavation.

709 (560) Φ 11/18 (PLATE 20)

Body sherd of small vessel: LL; fragment of red circle with two black outlines and radiating linked semicircles/wavy line (Davis and Cherry 2007, 270 Motif 10 and fig. 7. 2), probably with dotted interiors.

Cf. Atkinson *et al.* 1904, pl. xvii. 1 (CW).

710 (561) Φ 11/16 (PLATE 20)

Body sherd of large ?jug: LL; white slip all over, thicker o/s; at ?neck, a red band outlined with two black; on body below, fragment of a red circle outlined in black and with radiating chain of crude oval loops.

Cf. Atkinson *et al.* 1904, pl. xx. 12.

711 (459) Φ 11/16 (PLATE 20)

Body sherd of closed vessel: LL; bit of red circle outlined in black, with radiating loops.

Cf. Atkinson *et al.* 1904, pl. xx. 12; Davis 1986, 11 A–9 and pl. 45 (Melian).

Abstract zonal motifs:

713 (453) Φ 11/16 (PLATE 20)

Body sherd of small, probably closed, vase: LL; vertical red stripe outlined in black (only one side survives) with, to the left, three zones divided by ?cc lines: top—no motif survives; middle, running quirk; bottom, ?crescents.

Cf. Atkinson *et al.* 1904, pls. xviii. 11, 19 (CW: quirk); xx. 2 (B&R on CW: crescents).

Early Curvilinear style.

*Flower***715** (480) Φ 11/16 (PLATE 20)

Body sherd of ?; LL; part of the head of a flower; crude.

Cf. Atkinson *et al.* 1904, pl. xxviii. 8; Sherratt 2000, 277, 13.b.i.305 and fig. 194, pl. 428.

'Fritillaries' (Atkinson *et al.* 1904, 126) of this type stand on the B&R side of the 'intermediate' group

'Tree' patterns

These consist of a red (outlined or plain) trunk with branched appendages of various kinds, including discs or ovals, foliate leaves and spirals. The motif also occurs in the LL monochrome technique (cf. **461**), which suggests that this scheme is relatively late in the history of B&R, a conclusion supported by the usually LL character of the fabric on which it is found and the fact that the red is mostly not noticeably burnished. There are, however, examples in Davis 1986 (p. 11 A—7–8 and pl. 45—both pieces Melian B&R).

Cf. Atkinson *et al.* 1904, 121–3, with fig. 94 *a–b*; also fig. 91 (right) and pl. xx. 6, 16; Furumark 1941, 222.

716 (473) Φ 11/16 (PLATE 20)

Body sherd of closed vessel: LL/LCW; 'tree', with attached small discs or 'berries'. The pattern may be horizontal.

712 (460) Φ 11/16 (PLATE 20)

Body sherd of large open vessel: LCW/CCW; apparently coated black i/s unless this is discolouration; red circle outlined in black and with protruding loops, the loops contained within running bracket pattern.

Cf. **711**, but no parallel for bracket outline.

Note also that **395** (CW) has radiating foliates; **425** (CW) has a part of a black disc with red filling (B&R); **627** (LL) has loops as part of a ?flower.

Uncatalogued: (loops, all LL) 3; (other) 4.

714 (462) Φ 11/16 (PLATE 20)

Body sherd from neck of jug: LL; red band at neck; below, a zone of wavy line/running loops, trace of another cc band below.

Cf. Atkinson *et al.* 1904, pl. xvii. 6 (CW panelled cup); for other examples of wavy line, **709**, **731**.

For uncatalogued loops, see after **712**.

Uncatalogued: none.

(see above), though this piece seems doubtful, with the red unlikely to have been burnished.

Note that **627** (catalogued with LL shapes) has an apparently floral motif with loops framing an outlined 'bud'.

Uncatalogued: none.

717 (472) Φ 11/16 (PLATE 20)

Body sherd of closed vessel; LL; ?self-slipped o/s; 'tree', elongated ovoid 'leaves' (the setting is diagonal).

A pencilled mark '15' is unlikely to be from the 1911 excavation.

718 (474) Φ 11/16 (PLATE 20)

Body sherd of closed vessel, perhaps a BSJ: LL/LCW; 'tree', with spreading foliate leaves.

Cf. Atkinson *et al.* 1904, pl. xx. 16.

719 (477) Φ 11/16 (PLATE 20)

Body sherd of closed vessel: LL/LCW; white slipped o/s; spreading red foliate 'tree', the elements framed in black, beside part of another ?floral motif.

Cf. Atkinson *et al.* 1904, pl. xxviii. 10 *a-b*; also xx. 16, but none of these examples has framing, for which a possible parallel is Sherratt 2000, 268, 13.b.i.252 and pl. 399 ('feathered wing?').

720 (471) Φ 11/16 (PLATE 20)

Body sherd of closed vessel: LL; ?self-slipped o/s; 'tree', with spreading 'branches' as Atkinson *et al.* 1904, pl. xx. 6; trace of another circular motif in the field.

721 (470) Φ 11/16 (PLATE 20)

Body sherd of closed vessel; LL/LCW; white slipped o/s; 'tree' with spiral appendages.

722 (466) Φ 11/16 (PLATE 20)

Sherd from upper body of closed vessel: LL; bit of 'tree' trunk. The remaining attached spiral has the wide, empty centre, which seems characteristic only of CW decoration (cf. Atkinson *et al.* 1904, pls. xvi. 13, xxi. 15).

723 (475) Φ 11/16 (PLATE 20)

Body sherd of closed vessel (?rhyton): LCW; white slipped o/s; 'tree'—with 'climbing' curly line (?spirals or S-shapes), the centres filled with large discs.

Somewhat similar to Sherratt 2000, 270, 13.b.i.275–6 and pls. 403, 406 (spirals, no filling).

724 (476) Φ 11/16 (PLATE 20)

Three body sherds (2 joining) of large closed vessel: CW; creamy slipped exterior; complex of ?branches in red with black outlines.

Cf. perhaps Sherratt 2000, 269, 13.b.i.268 and pl. 403.

Uncatalogued: 14, all with spiral attachments (including CW and LL). The trunks and spirals vary in size and type.

Spirals (excluding those associated with the 'tree' motif)

In the B&R style, spirals seem always combined with other elements (cf. Atkinson *et al.* 1904, pl. xx. 7, 8, 10, 14, 15).

In the following two pieces, the overall decorative scheme is unclear.

725 (465) Φ 11/16 (PLATE 21)

Body sherds (2 joining) of large closed vessel: LL; a broad red-purplish band, apparently undulating, with other motifs (including spirals) associated: it is not clear to what extent they are attached to the band.

Cf. **732** for generally similar thick style. The motif is hard to interpret, unless it is related to those shown on Atkinson *et al.* 1904, 122 fig. 94 *a-b*.

A pencilled mark '15' on the larger piece is unlikely to be from the 1911 excavation.

726 (464) Φ 11/16 (PLATE 21)

Body sherd from large open bowl or basin, with decorated interior (cf. above, **533** etc.): LL; well smoothed o/s, white slipped i/s; decoration rather coarse; at bottom of sherd, part of a red zone with thick black upper outline, on which stands a bipod double spiral, with filling at the separation of the volutes and above. Possibly part of a pictorial motif. Cf. Atkinson *et al.* 1904, pl. xx. 15 (similar but not identical).

Uncatalogued: 4 (LCW).

Bands and subsidiary motifs

Red cc bands, outlined in black, are a characteristic of this style, of which they were thought (Atkinson *et al.* 1904, 119) to be an early manifestation.

727 (779) Φ 11/16 (PLATE 21)

Sherd from neck of beaked jug: CW; 2 black cc bands, the lower forming the upper border of a red zone.

730, identical in fabric, is probably from the same vessel.

728 (463) Φ 11/16 (PLATE 21)

Sherd from upper body of closed vessel: CW; slipped creamy white o/s; at top and bottom, parts

of red bands (the black outlines survive at bottom and top of bands, respectively); in the centre of the intervening zone, a cc black line, its upper (or ?lower) surface lightly fringed; at the right hand side the line divides to form an oval at the centre of which is the break.

Cf. Cummer and Schofield 1984, 47, 85 nos. 835, 836 and pl. 64, also pl. 64 *b* (Polychrome matt-painted), from an early LBA context. The latter seems closely similar to 728 but is regarded as a Mainland import.

729 (467) Φ 11/16 (FIG. 37)

Body sherd from neck of jug: the biscuit brick-coloured and hard-fired, with some white inclusions, quite similar to that of -(MM125) (a 'sub-LM I A' stirrup jar, see below p. 164, and FIG. 48); thick,

Other motifs

730 (778) Φ 11/16 (PLATE 21)

Body sherd of closed vessel: CW; thick red band, outlined in black; uncertain motifs extending from one band.

Probably same vase as no. 727.

731 (478) Φ 11/16 (PLATE 21)

Body sherd of large ?basin: for fabric cf. 729, though 731 shows only slight evidence of white inclusions; orientation uncertain; red ground with, in black paint, wavy line pendent from cc band; in field below, part of thick ?floral or other motif.

Perhaps like Cummer and Schofield 1984, 85 and pl. 64 *c* (a matt-painted cup), though the Keian is a

creamy-white slip o/s; the neck plain, then a red band outlined in black; below, trace of a zone of crosshatch.

Cf. Atkinson *et al.* 1904, pl. xxiii. 3 for approximate position of crosshatch.

This is a key piece for the local character of such harder LL fabric, suggesting that some similar 'Minoan' pieces might in fact be Cycladic, or else that they, too, are imported.

A pencilled mark '15' is unlikely to be from the 1911 excavation.

Note that 415 (catalogued with CW shapes, and see above 'Birds') has B&R banded neck decoration.

Uncatalogued: 1 B&R sherd of small vase.

much finer piece, or Sherratt 2000, 271, 13.b.i.285 and fig. 183, pl. 410. Similar shapes are used for dolphin fins (cf. Atkinson *et al.* 1904, 121 fig. 93) or, if inverted, rock pattern (cf. Atkinson *et al.* 1904, pl. xxiii. 7: early LC).

732 (718) Φ 11/17 (PLATE 21)

Body sherd of ? : LL; part of thick motif ?similar to 731.

733 (719) Φ 11/16 (PLATE 21)

Body sherd of ? : LL; ?rock pattern.

Uncatalogued: 17.

HARD PAINTED POTTERY

This small and miscellaneous group comprises material which is harder-fired than normal LC fabrics but cannot plausibly be assigned to any category of imports. The decoration is often careless. Most items are probably either contemporary with LL or, perhaps more probably, later (LC III). Some pieces may be attributable to the Hard Painted Domestic (HPD) and Coarse Local Painted (CLP) categories of Vaughan and Williams (2007, 103, 101–2).

734 (409) Φ 11/K (FIG. 38)

D. c.0.225; H. 0.051.

Rim (3 sherds joining) of cup or bowl; the lip everted.

Hard fired and well levigated.

White slip i/s and o/s.

In red-brown streaky paint: line on rim surface and in concavity; below, a zone of uneven crosshatch, then 5 cc bands.

The lip profile is similar to that of LC II SG cups (*c*) (506 etc.), but this vessel is much shallower than the norm for that shape.

The pattern is common in early LC, cf. Atkinson *et al.* 1904, pl. xxvi. 22.

735 (606) Φ 11/24 (FIG. 38)

D. c.0.16; H. 0.032.

Rim fragment of bowl or cup, with trace of handle (perhaps loop).

Brick-like biscuit, no grits.

Coated black i/s, and o/s below the handle zone, but fired reddish in places; the surfaces buff where undecorated.

In black paint: in the reserved handle zone, a black line on the lip outside and the handle root ringed;

to left of handle root, parts of two thick lightly oblique lines, presumably part of a group.

Possibly a MH import.

736 (617) Φ 11/24 (FIG. 38)

D. c.o.16; H. o.o29.

Rim fragment of cup, with beginning of spout or handle.

Brick-coloured fabric with slightly greyer core.

The surfaces slipped pale brown.

In black paint: a dark band at the lip i/s, o/s; large and small splodges on the interior; descending from the rim o/s, double vertical lines with cross infill interrupted by oblique/curving line which outlined the spout or handle.

Some similarity to **735**.

Date and source uncertain.

737 (615) Φ 11/K (2 joining), 17 (1) (FIG. 38)

D c.o.21; H. c.o.48.

Body (3 sherds, 2 joining) of cup or bowl, with thin vertical round-sectioned handle.

Like LL but not standard: thick grey core, with reddish outer layers; not so hard fired as some others in this group.

Smoothed pinkish-buff a/o.

In black and red paint: a faint cc band (red) at level of the top handle root (itself outlined in red); below, irregular spirals (black), apparently linked by double tangents.

737 and **741** have a general similarity to Davis and Cherry 2007, 285 P822 and fig. 7. 11 (Category B12 (b), bridge-spouted jar), 287 P1784 and fig. 7. 12 (B14, pyxis-like vessel).

738 (616) Φ 11/16 (PLATE 21)

L. o.o87.

Body sherd of fairly large ?bowl; orientation unclear.

Grey core, smoothed pale brown surfaces.

In black paint: rising from a black band, a crudely painted 'tree', with a spiral attached either side; above (?), a cc band and/or continuation of the 'tree'; inside, trace of a cc band.

The clumsy style perhaps recalls Atkinson *et al.* 1904, 122 fig. 94 a-b (B&R).

739 (605) Φ 11/24 (FIG. 38)

D. (base) c.o.037; H. o.o17.

Fragment of base of cup or bowl; the base concave.

Brick-like biscuit, with no grits.

Coated red-brown i/s; o/s, including under the base, covered in creamy white slip (worn off part of underneath).

In streaky black paint: spirals separated by vertical panels of very simple, crude crosshatch.

The vertical crosshatch zone provides a link to **736**.

740 (673) Φ ?11/E (FIG. 38)

D o.135; H o.o61.

Rim of ?amphora, with stump of thick oval-sectioned handle at rim.

Grey core with some small white grits; uneven mid to dark brown outer layers, lighter i/s.

Roughly smoothed; apparently wheelmarks i/s neck.

In black paint: band on top of the rim, extending slightly below.

Probably LC III.

741 (624) Φ 11/AK (FIG. 38)

L. (joining sherds) o.o14; H. ? c.o.093.

5 fragments (4 joining—the singleton possibly from a different vase) of body of closed vessel, with horizontal loop handle; orientation uncertain.

Brick-coloured surfaces, with grey core; WT.

Smoothed o/s, but not slipped.

In red-brown paint: the handle roots ringed; in the field, fragments of spirals, one with a solid centre.

742 (610) Φ 11/24 (PLATE 21)

L. o.o56.

Body sherd of ?

Uniform whitish biscuit, hard fired; WT.

The decoration worn; in reddish-brown paint: below/above two narrow bands, a zone of double foliates/crescents.

743 (404) Φ 11/24 (FIG. 38)

D (base) o.105; H. o.o43.

Base fragment of ?

Brick coloured surfaces, non gritty, with hard fired grey core; WT.

Coated thick black i/s.

In black paint: a thick cc band on highest preserved part; below, 3 narrow cc bands, one of them on the edge of the foot.

Resembles Mountjoy 2007, 323 no. 223 (= P151) and fig. 8. 12 (LH III B Hydria).

Uncatalogued (all HP): 2 body sherds (1 with handle stump) like **743**.

COARSE WHITE SLIP

Similar to CW in forms and decoration but the fabric is coarser, not white, and covered with an uneven white slip.

For fabric and surface treatment see Vaughan and Williams 2007, 102–3; for references, and comments on shapes and chronology, see Cycladic White, to which CWS is closely related and with which it is presumably contemporary.

Panelled cup

See **317** etc. (CW).

744 (566) Φ 11/?10 (FIG. 39)

D. c.o.13; H. o.o45.

Rim.

Sketchy white slip o/s only.

In brownish paint: line on top of rim; below, double bracket (reversed); in field, trace of another motif (?spiral).

745 (558) Φ 11/?10 (FIG. 39)

D. (max.) c.o.135; H. c.o.o64.

Rim; only a tiny fragment of the rim remains; the bottom of the sherd appears to be broken at the bottom of the panel.

Slipped a/o; worn o/s.

In faded dark paint: vertical edge of panel to right; bracket pattern, pendent at top, upright at bottom.

746 (559) Φ 11/?10 (FIG. 39)

D. (max.) c.o.16; H. o.o85.

Shallow cup (late type)

See **341** etc. (CW).

748 (299) Φ 11/14 (PLATE 21)

D. c.o.12; H. o.o38.

Rim; the top of the rim slightly worn.

Thicker fabric than usual for this shape; grey core with reddish outer layers.

Streaky white slip all over o/s; reddish brown i/s but not clear if this is a coat.

In brownish paint: ?line on top of rim with pendent bracket pattern.

Inturned-rim bowl

See **365** etc. (CW).

750 (300) Φ 11/?10 (3) and 12 (1) (FIG. 39)

D. c.o.155; H. o.o57.

Rim (4 fragments joining), with part of spout.

Grey core, with prominent white grits.

Smoothed dark purplish surfaces; uneven white slip on inturn and further traces i/s and o/s.

Rim and profile to beginning of foot; only a bit of the rim survives.

Thin white slip all over o/s.

In faded brown paint: bracket pattern pendent from rim and rising from trace of line (presumably that which defined the foot); in between, two further bands of bracket (reversed).

747 (557) Φ 11/18 (FIG. 39)

D. c.o.13; H. c.o.o47.

?Rim (possibly a tiny bit survives) of ?panelled cup.

Sketchy creamy slip o/s only.

In brownish paint: part of right side and top of panel; a line projects inward from the right side of the panel and is capped by two side-set U-shaped elements with a disc between them.

No parallel found.

749 (161) Φ 11/2 (PLATE 21)

D. (base). c.o.o45; H. o.o33.

Part base and profile.

Greyish fabric with small white grits; darker surfaces.

Coated purplish i/s; apparently a thin, uneven white slip o/s.

In matt purplish paint: band on angle of body/base, overlapping onto underside; spiral on body.

In brownish paint: ?line on top of rim; on inturn, irregular filled circles.

Cf. Atkinson *et al.* 1904, pl. xxxiii. 13.

A number of pieces assigned to different classes have this biscuit and surface colour, cf. **198** (DB).

Decorated body sherd

751 (618) Φ11/16 (PLATE 21)

L. 0.061.

Body sherd of closed vase.

Black-cored fabric with white grits, some relatively large.

Thicker than normal slip o/s.

In black paint: running spirals with roughly oval appendages.

The appendages closely resemble the bird's-head projections on **431** etc. (CW), but have no beaks.

Uncatalogued (all CWS): 2 body sherds.

PLAIN WARE

This small class of pottery, undecorated and utilitarian, stands between CW and LL in terms of fabric, and each piece could be arbitrarily located with one or the other, as indeed are the decorated pieces. Although its definition may thus seem somewhat illogical, it should be remembered that decoration itself (or the lack of it) can be an element in the choice of category (Renfrew *et al.* 2007, 93).

Such vessels, in particular the conical cups, have been found widely in the Cyclades and parallels are readily located in Crete.

The fabric, forms and contexts indicate that these vessels belongs to the end of City II and the earlier phases of City III (late MC to early LC).

Conical cup

Barber 1974, 40-41.

Barber 1978, i. 214-15, ii. 75-6.

Barber 2007, 214 Coarse Shape 2.

A good source of parallels is Catling *et al.* 1979 figs. 17, 21, 23 (MM III/LM I A): e.g. V-78 (fig. 21, saucer), V-25 (fig. 17, low), V-66 (fig. 21, bell-shaped), V-13 (fig. 17, tall), V-15 (fig. 17, bowl).

According to Vaughan and Williams (2007, 101-2), conical cups are found in Coarse Cycladic White (CCW, a Phase D, viz. LC I-II, fabric) and, to a lesser extent, when buff in colour, in Coarse Local Painted, a subdivision of Later Local (= their Later Local Painted), which begins in Phase C (= City II) and is frequent in D (early City III).

The vessels below are all wheel thrown, and sometimes have clear marks underneath where they have been cut off the wheel. Most are in a flaky, brownish ware with a limited amount of white grits, quite close to LL; some are greyish in the biscuit and closer to LCW.

The form is found in late MC and earlier LC levels at both Kea and Phylakopi; pieces also from Thera.

(Saucer-type)

Very shallow with marked central depression.

752 (?59) (MM 349) (FIG. 40)

D. (rim) 0.141; H. 0.038 (varies slightly).

Central depression: D. (av.) 0.045; Depth c.0.016.

Most (2 joining pieces) of vase.

Thick-walled.

One or two conical cups from MM III/LM I A Knossos (Catling *et al.* 1979, 27 V-78 and fig. 21) share the characteristics of this vessel (thickness, shallowness, depression) which, however, are less pronounced there.

The number '59' is clear but another has been erased (?'219').

The '59' is not a modern Melos Museum number, since the catalogue description (EC vase with incised decoration) does not fit this vessel. The designation in *MMCat* as a plain, unpainted 'patera' of very coarse clay, and 'like no. 220' (= **753**) does, however, accord with the character of this piece.

It is not included in PCD but the find spot is recorded as H. 4. 2. 100. 36-17. This seems (PNB 11) to be an LC II context.

(Low)

753 (220) (MM-) (FIG. 40)

D. 0.122; H. 0.03.

Complete; the rim slightly damaged in places; the base uneven where cut off the wheel.

Pencilled on side 'H₄. 14 97. 58-46'. Not in PCD.Listed in *MMCat* as plain, unpainted 'patera'. Find

spot recorded (PNB 92) as H. 4. 14. 97. 58-96. 83.

This context is III-i (LC I) (Barber 1974, 10).

754 (307) Φ 11/15 (FIG. 40)

D. c.o.085; H. 0.042.

Whole profile.

Buff-brown with mostly white grits; closer to LL than CW.

Coated white (?or lime deposit) a/o.

(Bell-shaped)

758 (650) Φ ?11/E (FIG. 40)

D. c.o.095; H. (max.) 0.062.

Rim; about 3/4 of vessel.

Towards LCW.

(Tall)

760 (646) Φ ?11/E (FIG. 40)

D. c.o.075; H. (max.) 0.068.

About 1/2 of vessel, including rim.

Towards LL.

761 (645) Φ ?11/C (FIG. 40)

D. c.o.10; H. 0.068 (max.)

Whole profile; about 1/3 of vessel.

Towards LL.

(Bowl)

763 (786) Φ ?11/E (PLATE 21)

D. 0.125; H. 0.052.

Rim.

Towards LCW.

Cf. Barber 1974, 41 no. 226 (MM316) and pl. 5 a.

Ladle/brazier/scuttle

For parallels and discussion, see **532** (LL), where dated pieces are LC I-II. The example from Knossos cited below suggests that the upper end of the date range might be extended into later MC.

764 (706) Φ ?11/C (PLATE 21)

D. c.o.10; H. 0.047.

Rim fragment probably of this form (from one side of the handle); wide, flat ledge rim projecting outwards.

Towards LCW.

755 (306) Φ 11/15 (FIG. 40)

D. c.o.10; H. 0.039.

Whole profile, including all of base.

Coated white (?or lime deposit) a/o.

756 (648) Φ ?11/E (FIG. 40)

D. c.o.08; H. (max.) 0.047.

Almost complete.

Towards LL.

757 (647) Φ ?11/E (FIG. 40)

D. c.o.085; H. (max.) 0.039.

About 4/5 of vessel, including part of rim.

Towards LL.

759 (649) Φ ?11/E (FIG. 40)

D. ?; H. 0.054 (max.).

Rim, about 2/3 of vessel.

Towards LL.

762 (-(MM 330)) (FIG. 40)

D. 0.115; H. 0.082 (max., varies slightly).

Complete vessel.

Buff-brown with white and black grits.

Cf. Barber 1974, 40 no. 225 (MM324) and fig. 8.

The vase seems to have had an excavation number, now illegible.

Uncatalogued: c.10 rims (2 composed of several joining fragments), 1 base.

Uncatalogued: 33 whole vessels, rims or substantial fragments + a number of bits (32 Low or uncertain, 1 Bell, no Tall, no bowls).

Cf. Cummer and Schofield 1984, 104 no. 1175 and pl. 76; Popham *et al.* 1984 pl. 137 d: MM III/LM I A.

Uncatalogued: none.

Flower vase (Flaring bowl)

Atkinson *et al.* 1904, 118 Shape 8; also 139, 176 and pl. xxxvi. 18.

Georgiou 1986, 30–5 Spreading Bowls Type (b).

Cf. 363 etc. (CW), 523 (LL).

For the presence/absence of perforations, see Atkinson *et al.* 1904, 118.

The two plain examples have broader bases and probably a greater flare than those in other fabrics.

Also found on Kea and Thera. Keian pieces of Type (c) almost all belong to Periods VI and VII (LC I–II). The fabric and parallels suggest a transitional MC/LC date.

765 (64 (MM)) (FIG. 41)

D. (rim) 0.181 (base) 0.065; H. 0.123.

Most of vessel; a section of the rim and upper body missing; other parts of the rim and base chipped or worn; no perforation.

Brown-grey fabric with fairly small grits only, not far from CCW and resembling that of conical cups; WT (marks i/s, o/s).

The lower part of the interior is reddened, apparently from its contents.

Not in PCD. Entered in *MMCat* under 'vessels with large bases' in the category 'Plain Unpainted Ware:

no slip: very coarse clay'. Find-spot recorded (PNB 91) as 'H. 4 Top walls', a context for which there can be no useful dating information.

766 (–(MM 349)) (FIG. 41)

D. (rim) 0.187; (base) 0.069; H. 0.112.

Most of vessel; a small perforation (D. 0.005) in the base.

There was probably an old number underneath, perhaps '13' + a third digit.

Uncatalogued: none.

Jug/juglet

Atkinson *et al.* 1904, 139, 176 and pl. xxxv. 6, 9.

Barber 1974, 40.

Barber 1978, i. 213, ii. 74.

767 (233 (MM–)) (FIG. 41)

D. (rim) 0.035; (base) 0.038; H. 0.098.

Most of vase; round-mouthed, low-bellied; with lower stump of (?oval sectioned) handle attached to the body; the mouth narrow (0.013); the rim broad and down-turning o/s; half of rim missing. WT.

Cf. Barber 1974, 40 no. 237+ (MM35) and pl. 5 f; Popham *et al.* 1984 pl. 137 (d): MM III/LM I A.

The '233' is definitely not a modern Melos Museum number and looks like many of the 1911 series. In *MMCat* no. 233 is listed under 'Odds and ends'.

This vase is not in the PCD but the list of find-spots gives its context as H. 4. 22. 97. 71–53, dated to III–ii (LC II) (Barber 1974, 14).

768 (95 (MM–)) (FIG. 41)

D. (max., body) 0.088; H. 0.099.

Most of vase; beaked spout, with round-sectioned handle from rim to shoulder, though only the shoulder end survives; the end of the mouth missing and the rim defective where the handle broken off.

Harder than most Plain Ware; quite fine fabric with some black grits; WT.

Cf. Barber 1974, 40 no. 247 (MM23) and fig. 8, pl. 5 f, though perhaps closer in form to the larger B&R jug (Barber 1974, 35 no. 191 (MM92) and fig. 7, photo. Dawkins and Droop 1911, pl. viii (III–i)).

The vase is not listed in PCD or *MMCat*. The find-spot list in PNB gives the context of no. 95 as H. 4. 28a. 97. 42 –.05 rock which looks (PNB 28) like an early II deposit, slightly contaminated.

Uncatalogued: none.

COARSE WARE

The general characteristics of Coarse pottery are taken by most analysts to be self-evident and the fabrics have not been described in detail (see however Vaughan and Williams 2007, 110–23 for petrographic analysis of Melian clays with reference to the EBA pottery from Phylakopi).

The material is various and often hard to date (for some attempts, see Barber 2007, 213–32). Few of the pieces here find ready parallels amongst the undecorated material illustrated in Atkinson *et al.* 1904, most of which is probably relatively late in the sequence.

The majority of the coarse pottery sherds found in 1911 must have been discarded.

769 (681) Φ 11?/B (FIG. 42)

D ?; H. 0.044.

Rim of bowl or jar; the rim has a broad ledge; at the point where the sherd is broken is the beginning of a spout.

Thick grey core, pale brown outer layers (some white grits). Very crude and uneven surface finish, as if squeezed with the fingers rather than smoothed.

Cf. Barber 2007, 228 nos. 344, 345 and fig. 6. 16 (Coarse) for a somewhat similar rim form, but no direct parallels.

770 (680) Φ ?11/D (FIG. 42)

D. ?; H. 0.037.

Rim of ?barrel jar; there appears to be a trace of an uneven ledge at the inner edge of the flat rim.

Fabric and finish like no. 769 but surface rougher and less sign of 'fingering'.

Barrel jars are found in Geometric (100 etc.) and DB (288 etc.).

771 (676) Φ ?11/A (FIG. 42)

D. c.o.37; H. 0.065.

Rim of pithos.

Heavy, with white grits; the surface abraded.

Firebox

Georgiou 1986, 4–22.

Cummer and Schofield 1984, 166 (index) s.v. fireboxes.

Georgiou 1986, 7–10 discusses in detail this type and its possible function in the production of aromatics. All the examples from Kea may be from Periods VI and VII (LC I–II), in the proportion of 1:2.

774 (–(MM432)) (FIG. 43)

D (max.). 0.05; H 0.041.

Most of core of firebox; broken all round 'rim'; no perforations survive.

Reddish fabric, heavily blackened i/s; parallel striations from wheel on upper body.

Traces of pencilled mark ?'H. 2' on underside.

775 (?136 (MM350)) (PL 21)

D. (max.) 0.062; H. 0.05.

Complete core; two rows of perforations (not all intact) between rim and maximum diameter; broken all round exterior circumference.

Sides of interior blackened, especially round the perforations.

Cf. Barber 2007, 225 nos. 332, 333 and fig. 6. 15 (Coarse).

772 (675) Φ ?11/D (FIG. 42)

D. c.o.34; H. 0.099.

Rim of pithos.

Chocolate-brownish biscuit, less gritty than normal.

Some large white grits in the outer surface; the surfaces well smoothed, including i/s where visible.

In relief: on the shoulder, a raised band with thumb-print decoration; traces of some painted decoration in white: thick band at rim i/s; on top of and on outer edge of rim overlapping onto under-edge, cc band, and pendent bars.

Cf. Barber 2007, 228 no. 356 and fig. 6.17, pl. 29 c (Coarse).

The parallel suggests a generally late MC date.

773 (678) Φ ?11/C (FIG. 42)

D. c.o.28; H. 0.073.

Rim of pithos of similar form to 772.

Hard fired fabric with thick grey core (some large white grits, also visible in surfaces).

Light brown smoothed surfaces (blackier o/s).

Of the old number, the digits '3' and '6' seem fairly secure but '36' is a beaked jug in the records. '136' (not in PCD) is classed with 'Odds and Ends' in *MMCat*. If the number is correctly read, the find-spot was H.4.40 99. 32–03 rock. This context could (PNB 40) be I-iii or early II.

776 (420) Φ 11/K (PLATE 21)

D. c.o.05; L. 0.035.

Body sherd (possibly of perforated jug neck), with one complete and traces of three other perforations.

Quite fine brick-coloured fabric.

*Cf. Atkinson *et al.* 1904, 136 Shape 16, for perforations in jug necks.*

Crucible

Branigan 1974, 68–71, 203.

Blitzer 1995, 502–5, pls. 8.76, 8.77A–B, 8.104.

Evely 2000, 346–52 and fig. 139.

777 (–(MM431)) (FIG. 43)

D. (max.) c.o.135 (as restored); H. 0.08.

2 joining fragments of crucible, completed in plaster. Roughly circular, the shape flattened by the spout. The 'base' is formed by two parallel ridges to allow the object to rest upright.

Uneven and blackened i/s; reddened o/s.

Droplets of metal adhere to interior.

Cf. Dawkins and Droop 1911, 21–2 and pl. vii. (middle of bottom row, unnumbered). Another fragment is noted in Atkinson *et al.* 1904, 191.

Find-spot stated as 'H 5 1' though not mentioned

under the entry for this location in PNB where (p. 94), appended to the list of small objects, is the comment that remains of at least five crucibles came from H. 4. 9.

778 (–(MM252)) (FIG. 43)

D. 0.185; H. c.o.121.

Most of crucible, completed in plaster.

Except for larger dimensions, in all respects similar to **777**.

Cf. Dawkins and Droop 1911, 21–2 and pl. vii (bottom right, unnumbered), and preceding entry.

Body sherds of pithoi or other large vessels with incised and/or relief decoration

Atkinson *et al.* 1904, 175 (with indications of date) and pl. xxxiv.

Scholes 1956, 21–2.

Barber 1978, i. 175–7, 213, ii. -, 73–4.

Barber 2007, 228–30 nos. 356–65 and fig. 6.17, pl. 29 (c) (Coarse Shape 20 (b)).

779 (416) Φ 11/1 (PLATE 21)

L. (of larger). 0.056.

Body sherds (2).

Relief band with broad nail incisions.

Cf. MacGillivray 1980, 34 no. 192 (EC II–III A) and fig. 17, for incision style.

780 (417) Φ 11/1 (PLATE 21)

L. 0.056.

Body sherd.

Relief band with finger-side impressions.

781 (418) Φ 11/1 (PLATE 21)

L. 0.056.

Body sherd.

Relief band with parts of two rows of finger-tip impressions.

Cf. MacGillivray 1980, 43 no. 395 (EC II–III A) and fig. 18, for decoration.

Body sherd: other

782 (490) Φ 11/8a (PLATE 21)

L. 0.105.

Body sherd of large vessel with distinct convex curvature.

Impressed, apparently on interior: broadly spaced kerbschnitt pattern.

There is a general similarity to mat impressions from Ayia Irini Periods II and III (e.g. Wilson 1999,

262, index, s.v. 'Mat impressions' and pls. 41, 73) but these do not include kerbschnitt and all are on the undersides of flat bases.

The position of the pattern on the concave ?interior seems very odd. Another possible interpretation is as part of the underside of a convex base whose shaped edge is missing.

Probably EC II.

Other

783 (178 (MM–)) (FIG. 43)

D. (mouth) 0.06; (base) 0.05; H. 0.16.

Jug, with RSH (missing) from rim to shoulder; the rim and base somewhat damaged.

Fine, brownish-red fabric without inclusions.

Reddish in places o/s; mostly whitened but probably not slipped; WT.

Cf. Catling *et al.* 1979, 50 V–238 (ribbed) and fig. 36: MM III/LM I A.

Pencilled underneath: 'H4. 14 97. 58.' This number tallies with the note against no. 178 in the list of find-spots in PNB 92 (97. 58–96. 83 'floor at 96. 83').

No. 178 is not in the PCD but is listed under 'Odds and ends' in the *MMCat*.

The context is III-i (LC I) (Barber 1974, 11).

784 (654) Φ ?11/E (FIG. 43)

D 0.055; H 0.025.

Part of base of ?; part of perforation (D 0.007).

Reddish fabric with some mica, perhaps like jugs from 1911 (Barber 1974, 27–8 no. 16 (MM136) etc. and fig. 2, photos. Dawkins and Droop 1911, pl. vi).

The fabric may be Naxian (Barber and Hadjianastasiou 1989, 98).

?EC III B.

Uncatalogued (all Coarse): body sherds 5 (2 with relief decoration, 1 with stud); rims 4; 2 thin strap handles.

Uncatalogued (all Coarse): body sherds 26 (with relief decoration 3, inc. 2 with medallions, 1 with frequent long thin crescent slashes in straight and wavy lines (as Atkinson et al. 1904, pl. xxxiv. 13); 9 in whitish ware of which 2 have grooved decoration; 2 grooved non-white; 2 dark-faced with white linear decoration); bases 11; legs 2 (1 with grooves on exterior); neck 1.

The legs are probably from tripod cooking pots, cf. Barber 2007, 231 no. 377 and pl. 27 e, found on major Cycladic sites (late MC and LC).

GREY MINYAN

Dickinson's recent discussion (2007) of finds from the latest excavations at Phylakopi is now the primary source for this class of pottery from the site. The pieces here have been ordered according to his text (2007, 238–44 and figs. 6. 18, 6. 19) and no further comment is offered on individual forms. A few of the items included, unspecified now because then unnumbered, were seen and referred to by him (2007, 238–9).

For the fabric(s), see Dickinson 2007, 239 and Vaughan and Williams 2007, 103. Although the fabric of classic Grey Minyan is immediately recognizable, its most prominent shapes are also found in local burnished ware. Intermediate fabrics can sometimes be difficult to assign to one class or the other. The quality of the pieces below is noted only when it diverges from the standard.

Grey Minyan pottery is quite common at Phylakopi, where it appeared in classic forms in Phase ii of the Second City (early MC) and is found into the early LC period. There seems no basis for Furumark's attribution (1941, 217 n. 1) of some GM finds to Phylakopi I-iii /II-i. The range of shapes represented is limited with the ring-stemmed goblet and kantharos prominent.

For Minyan pottery in the Cyclades, where finds are widespread with the curious exception of Thera (a few only), see Barber 1978, i. 161–6, ii. 221–6. A useful source of parallels is Mylonas 1973, pls. 214–17 (stemmed goblets of both types), 234 (kantharoi).

Kantharoi

785 (125) Φ 11/26 (FIG. 44)

D. 0.016; H. 0.047.

Rim.

Slight grooves on shoulder.

786 (104) Φ 11/26 (FIG. 44)

D. ?0. 14; H. 0.068.

Rim, with part high-swung handle.

787 (105) Φ 11/26 (FIG. 44)

D. ?0.17; H. (inc. handle) 0.072.

Rim, with part of high-swung handle.

Fabric verges on that of DB.

788 (106) Φ 11/28 (FIG. 44)

D. ?; H. 0.04.

Rim, with complete handle rising above rim.

Brownish-grey fabric.

789 (122) Φ 11/26 (FIG. 44)

D. 0.012; H. 0.044.

Complete profile, with roots of strap handle from rim to carination.

Uncatalogued: rims 31.

*Stemmed goblet (strap-handled)***790** (126) Φ 11/21 (FIG. 44)

D. ?; H. 0.032.

Rim.

791 (97) Φ 11/26 (FIG. 44)

D. c.o.18; H. 0.058.

Rim.

792 (95) Φ 11/26 (FIG. 44)

D. c.o.18; H. 0.055.

Rim.

793 (98) Φ 11/26 (FIG. 44)

D. c.o.18; H. 0.056.

Rim.

794 (107) Φ 11/21 (FIG. 44)

D. 0.17; H. 0.063.

Rim.

795 (100) Φ 11/21 (FIG. 44)

D. c.o.26; H. 0.064.

Rim, with strap handle from rim angle to carination.

796 (99) Φ 11/26 (FIG. 44)

D. c.o.25; H. 0.068.

Rim (3 joining sherds).

The biscuit is sandy in contrast to the usual uniform grey, but thin outer layers conform to standard colour and quality.

797 (96) Φ 11/28 (FIG. 44)

D. c.20. 20; H. 0.075.

Rim.

*Stems***802** (526) Φ 11/28 (FIG. 44)

D. (at top of stem) 0.095; H. 0.057.

Lower part of bowl (3 fragments joining) plus top of stem with one ring.

803 (90) Φ 11/21 (FIG. 44)

D. 0.155; H. 0.041.

Part of ring-stem (part of first ring survives).

804 (94) Φ 11/28 (FIG. 44)

D. c.o.17; H. 0.038.

Part of ring-stem (parts of two rings survive).

*Stemmed goblets with loop handles***807** (121) Φ 11/21 (FIG. 45)

D. c.o.20; H. 0.048.

Rim, with stumps of both ends of loop handle.

Black.

808 (342) Φ 11/5 (PLATE 22)

D. c.o.21; H. 0.023.

Rim.

798 (91) Φ 11/26 (FIG. 44)

D. 0.24; H. 0.05.

Rim, with strap handle from root of offset to carination.

799 (92) Φ 11/26 (FIG. 44)

D. c.o.18; H. 0.062.

Rim, with strap handle from root of offset to carination.

800 (84) Φ 11/21 (FIG. 44)

D. c.o.30; H. 0.079.

Rim, with substantial part of strap handle.

Brownish o/s, black i/s.

In relief: 2 cc bands below handle; apparently decorated, in dark paint (faded) under lip o/s: detached chunk of thick zigzag.

For decoration cf. Atkinson *et al.* 1904, pls. xi. 2, xii. 6, xiii. 1 (all SMP)—a possible interesting link between GM, DB, and SMP. Thick zigzag, though not detached, is also found on DB, cf. **305-6**.**801** (93) Φ 11/28 (FIG. 44)

H. c.o.04.

Strap handle.

Cf. Mylonas 1973, pl. 217.

Uncatalogued: rims 31; strap handle fragments 33.

805 (89) Φ 11/28 (FIG. 44)

D. 0.13; H. 0.059.

Part of ring stem (part of first ring survives).

806 (525) Φ 11/26 (PLATE 22)

D. 0.085; H. 0.022.

Base of plain (?) stem.

Uncatalogued: ring stems (broad) 31, (narrower) 12; plain stems 13; pedestal fragments (mostly with 'rim' of base) 36.

Black fabric, similar to that of DB.

809 (102) Φ 11/21 (FIG. 45; PLATE 22)

D. c.o.24; H. (inc. handle) 0.06.

Rim, with remains of handle.

810 (101) Φ 11/21 (FIG. 45)

D. c.o.19; H. 0.054.

Rim, ?with handle as **809**, **811**.

811 (103) Φ 11/28 (FIG. 45)

H. c.o.o66.

Rim and about half of handle as **810**, **809**.

Uncatalogued: rims 19 (of which 7 have handle remains).

Other shapes

812 (524) Φ 11/21 (PLATE 22)

L. o.o63.

Handle of ?; oval-sectioned, with protrusion at one end.

Cf. Goldman 1931, 139–41 and no. 165, fig. 92 (imitation rivets).

813 (123) Φ 11/28 (FIG. 45)

H. c.o.o4.

Rim of ?jar or bowl; wide, flat, projecting inwards and outwards; the surface slightly concave.

814 (124) Φ 11/26 (FIG. 45)

D. c.o.o8; H o.o3.

Base of ?; raised ring, slight groove inside edge of base underneath.

Other uncatalogued: bases 2; body sherds (plain) 150; body sherds with ridged or grooved decoration 40 (2 joining).

OTHER IMPORTED POTTERY

The pottery considered here is MM, MH (other than Grey Minyan), and LM I. With the exception of the LM I material, and one or two other pieces which are more suitably placed here, the Late Minoan and Mycenaean pottery will be published by Dr P. A. Mountjoy, in *BSA* 104 (2009).

In summary, MM I A–II B pottery is found in significant quantities in the earlier levels of City II at Phylakopi, MM III in the later, where it is probably less common. Among the Cycladic islands, only Ayia Irini is comparable to Phylakopi in respect of Middle Minoan imports, although there are a few finds from other islands and Akrotiri may yet prove to be another prominent source (Nikolakopoulou *et al.* 2008). Imports and imitations of LM I A are numerous at all sites belonging to the period contemporary with City III-i at Phylakopi. Finds of Grey Minyan (see previous section) are quite common at Phylakopi from Phase II-ii but other Mainland pottery (Matt-painted) is very rare. A few polychrome pieces are found at Phylakopi and elsewhere at the transition from Middle to Late Cycladic.

For lists of imported pottery of Cretan and Mainland origin found in the Cyclades, see Barber 1978, ii. 221–6; for more recent finds and assessments of quantities, see especially Dickinson 2007; Hood 2007; Mountjoy 2007.

MIDDLE HELLADIC (AND ?AIGINETAN)

Blegen 1921, 28–30 (Polychrome matt-painted)

Barber 1978, i. 328–36, ii. 221–6.

Dickinson 2007.

Overbeck 1989b, 10–11.

Davis 1986, 6–7, 84–5.

A few other pieces, catalogued with the Cycladic fabric groups, are also regarded as possible Mainland imports (see **121**, **151**, **148**, all MP; **735**, HP; conceivably also **729**, B&R).

(Polychrome matt-painted)

815 (609) Φ 11/ 17 (PLATE 22)

H. o.o59.

Body sherd of bowl.

Reddish biscuit with slightly greyer core.

Smoothed, more so o/s.

In red and black paint: two zones of red separated by a reserved band and outlined with black—over the reserved band and overlapping onto the red to either side, black wavy line; in main field below, black spirals with double tangential linkage.

Cf. Goldman 1931, figs. 211-10, 240-3, 242-3 etc.; also Dickinson 2007, 245-6.

Comparable pieces, found at the Cave of Zas on

(Monochrome matt-painted)

Kantharos/carinated cup

Atkinson *et al.* 1904, 118 Shape 9.

Barber 1974, 27.

Barber 1978, i. 146, ii. 21-2.

Dickinson 2007, 244.

Dickinson (2007, 244) has treated fragments of this form, with identical motifs, as Mainland imports dateable to late MH/LH I or somewhat earlier. In the Cyclades, such decoration suits the earlier option. The decoration of the group certainly stands out from that of other CW vessels but Dickinson found it hard to parallel the schemes on Mainland pottery and a Cycladic provenance is possible, especially since the fabric is indistinguishable from good CW, a remark which is also relevant to the sherds with sparse decoration treated under 'Cycladic White'.

NB. In both Barber 1974 (p. 27 and fig. 4, pl. 2 c) and 1978, -(MM425) was misclassified with pottery of the MP class, though the list of parallels remains valid.

816 (44) Φ 11/19 (FIG. 46)

D. 0.12; H. 0.04.

Rim.

In brown paint: in narrow zone defined by two bands and divided in the middle by a third, two layers of rectangles alternately painted and reserved; in the field below, part of small disc.

A pencilled mark '31' is unlikely to be from the 1911 excavation.

817 (173) Φ 11/14 (PLATE 22)

D. c.0.145; H. 0.059.

Rim.

In brown paint: line at rim i/s, two lines o/s and two at carination; in between, decoration as **816**.

818 (174) Φ 11/14 (FIG. 46)

D. ?c.0.13; H. 0.052.

Rim; the rim turns out, presumably to a simple spout.

In brown paint: line at rim i/s; o/s, one line just below rim and two more (the second on the angle and barely visible) at the carination; at left of fragment, two vertical lines form the edge of a panel in which the decoration was presumably set; in place of the rectangle decoration of **816-7** is a broader zone defined by two horizontal lines and filled with cross-hatch.

Cf. Barber 1974, 27 no. -(MM425) and fig. 4, pl. 2 c.

Naxos, will be published by the writer on behalf of the excavators, Dr Douzougli and Dr Zakhos.

819 (43) Φ 11/19 (FIG. 46)

D. c.0.12; H. 0.039.

Rim, with out-turn as **818**.

In brown paint: in narrow zone defined by two bands, three layers of rectangles alternately painted and reserved; in the field below, part of a small disc.

Cf. Atkinson *et al.* 1904, pl. xviii. 22.

820 (407) Φ 11/K (PLATE 22)

D. ?; H. c.0.045.

Body sherd (from just below rim to carination).

Distinctive semifine non-gritty fabric with buff-orange surfaces.

In thick brown-purplish paint, with relatively broad brushstrokes: double vertical line (= one side of a panel); trace of horizontal line just below carination; in main zone, a confined band of crosshatch with another, much slighter, just above the carination; inside, a group of parallel lines (three survive) ?pendent from rim.

The fabric and style of painting are distinctive and indicate a source different from the other examples of this shape.

Cf. (for style of hatching on a similar shape) Siedentopf 1991, no. 751 and pl. 115 (Stadt IX). The parallel is close and also has interior decoration.

Perhaps imported from Aigina.

(Decorated body sherd)

821 (802) Φ 11/19 (PLATE 22)

L. 0.06. Body sherd of small closed vessel: reddish fabric, well levigated, with only sparse small grits, showing black in the interior; white slip, black and reddish (the filling) paint; vertical zone framed by

LATE HELLADIC MATT-PAINTED

Jug with cutaway mouth

Uncatalogued: none.

—(MM122) (FIG. 46)

Previously published in Barber 1974, 37 and pl. 5 *d*, where the Mainland provenance was not recognized; also note that an 'ivy leaf' element was there mistakenly included in the description.

D. (rim) 0.115; H. c.0.122.

Upper part, joined from two large fragments; the cut-away mouth and upper body are complete, with RSH from rim to shoulder.

Hard-fired, well levigated, pinkish fabric.

Pale slip o/s.

MIDDLE MINOAN

Hood 2007.

Overbeck 1989b, 11–12.

Davis 1986, 6.

Perhaps from Aigina.

822 (413) Φ 11/8a (FIG. 46)

D. c.0.085; H. 0.043.

Rim (2 sherds joining) of cup.

Fine buff with grey core; WT.

In red and black paint: band at rim o/s (red); band at rim i/s (black); impressed: below the exterior band, oblique rows of very fine wedge-pattern.

Possibly central Cretan MM II–III on grounds of fabric, paint, and form, but the impressed pattern is hard to parallel.

823 (612) Φ 11/8a (FIG. 46)

D. 0.065; H. 0.025.

Part of base and lower body of straight-sided cup (Knossos Type 2).

Fine buff.

The surfaces black-coated (streaky underneath).

In white paint: three parallel vertical stripes visible.

Cf. MacGillivray 1998, 69 and fig. 2. 10.

double lines with horizontal '˘' filling; cc bands and oblique stripes attached.

Cf. Goldman 1931, 156 and fig. 216, 168 and fig. 235.4, pl. xviii. 1. Roughly similar vertical designs can be seen on *ibid.* 171 and fig. 240.5 and L. Dor *et al.*, *Kirra: étude de préhistoire phocéenne*, Paris, 1960, pl. xxx c; also —(MM122) below.

In uneven black paint with reddish tinge (the rungs of the 'ladders' redder): alternating pendent ladders and double wavy lines; the handle root ringed and the top of the mouth painted; a narrow band at the neck/shoulder junction; beginning of pendent parallel wavy lines from the bottom of the ring round the handle root.

Cf. Mountjoy 1981, 601 and nos. 103 (p. 26 and fig. 11: hydria, for decoration), 106 (p. 26 and fig. 11), 252 (p. 38 and fig. 22, pl. 20 *a*); Lindblom 2001, 109.

LH II B–III A1.

Belongs to the Woven Style of MM I B Knossian Pattern Painted Ware (*ibid.* 59).

Central Cretan, probably MM I B.

824 (613) Φ 11/8a (FIG. 46)

D. c.0.12; H. 0.047.

Rim of straight-sided cup (probably Knossos Type 3; MacGillivray 1998, 69) or large tumbler (Type 2: *ibid.* 68)

Fabric and coat as **823**.

In white paint: below lip, narrow cc band and, pendent from it, parts of five parallel oblique lines; below, bits of four of a second series are just visible in shadow.

Probably central Cretan, MM I B.

Recalls some Cycladic decorative elements found on DB and in the early Curvilinear style, including the filling of elaborate triangles (cf. **313**).

825 (614) Φ 11/24 (FIG. 46)

D. (base) 0.036; H. 0.009.

Base of small cup.

Fine grey; WT.

Coated/mottled dark brown a/o, except underneath.

In darker paint: band in foot/body angle; above ? Perhaps Minoan (MM II A).

826 (21) Φ 11/1 (FIG. 46)

D. (length of oval) 0.039; H. 0.033.

Mouth of oval-mouthed amphora, with stump of one handle and base of the other.

LATE MINOAN I

Doumas 1983, 139.

Cummer and Schofield 1984, 46.

Marthari 1990; 1993.

Mountjoy 2007.

Unless otherwise stated, the sherds in this section belong to the class termed either 'Sub-LM I A' (Furumark 1950, 153-4) or 'Standard Tradition' (Betancourt 1985, 137-40); see Mountjoy 2003, 78 with n. 218. Inevitably it is, in many cases, hard to distinguish between mature and sub-LM I A (ibid. and Betancourt 1985, 139).

Cups/bowls

827 (824) Φ 11/? (FIG. 47)

D. ?; H. 0.037.

Rim of rounded cup.

Fine, pale fabric.

Coated black i/s.

In lustrous black paint: wide band in angle of lip; in field below, single foliate band; below, trace of a cc line.

Cf. Mountjoy 2003, 103 no. 382 and fig. 4. 23.

828 (582) Φ 11/? (FIG. 47)

D. 0.055; H. 0.47.

Body sherd of rounded cup.

Fine, thin buff; WT.

Coated red-brown all-over i/s.

In semi-lustrous red-brown paint: one (of a series of) linked spirals with disc/medallion centre (added white spots); thick cc band (two thin white lines added) below.

Cf. Mountjoy 2003, 97 no. 294 and fig. 4. 21 etc. (shape) (p.100 no. 353 and fig. 4. 22 has roughly similar decoration); Warren 1999, pl. CCVI: P2320, P2330).

A pencilled number '16' is unlikely to be from the 1911 excavation.

Semifine orange fabric.

Dark purplish slip all over o/s and i/s mouth.

MM II-LM I.

Uncatalogued: 3 tiny undecorated sherds in fine, thin fabric, with black, glossy exterior, which may be MM.

829 (584) Φ 11/9 (FIG. 47)

D. (base) 0.032; H. 0.025.

Base of ogival cup.

Fine buff.

Remains of black coating i/s.

In brown-black paint: thick band at base; above, lower part of grass/reed pattern.

Cf. Mountjoy 2003, 74 nos. 133-4 and fig. 4. 10, 101 nos. 370-7 and fig. 4. 23; Warren 1999, pl. CCVI: P2337.

830 (688) Φ 11/D (FIG. 47)

H. c.0.053.

Body sherd of cup or bowl.

Fine buff; WT.

Coated dark brown i/s.

In similar paint (matt): 2 thick cc bands (only a bit of the upper survives) with added white lines; below, thick wavy line; ?trace of red between the cc bands.

831 (598) Φ 11/18 (FIG. 47)

D. 0.055; H. 0.022.

Sherd of base of ?cup.

Fine buff.

In black paint: thick band at base.

*Goblet or krater***832** (589) Φ 11/? (FIG. 47)

L. 0.044.

Body sherd of large goblet or krater.

Fine pale buff, with pale grey core.

*Conical rhyton***833** (583) Φ 11/? (FIG. 47)

D. 0.075; H. 0.042.

Body sherd of conical rhyton.

Thick but well levigated, buff.

In cracking brown-black, and white paint: between two cc bands (the upper narrower, with slight traces of decoration in zone above), crosses alternating

*Basin***834** (593) Φ 11/? (PLATE 22)

L. 0.063.

Body sherd of large cylindrical basin.

Semifine, uniform buff; WT.

In black paint, sometimes streaky: careless spirals; parts of 2 cc bands (with added white lines).

*Jars and jugs***835** (591) Φ 11/K (PLATE 22)

L. 0.067.

Body sherd of closed jar.

Very fine, soft buff; WT.

In reddish paint: imprinted/stipple pattern.

Cf. FM 77-1 (LH II A-B); perhaps Mountjoy 2003, 99 no. 329 and fig. 4. 21; LM I B.

836 (585) Φ 11/? (FIG. 47)

L. 0.058.

Body sherd from shoulder of jar or jug; ridged.

Fine, yellow fabric.

Creamy-yellow wash o/s.

In cracking paint, varying from red-brown to black: in three zones (top to bottom)—stripes, repeated vertical zigzag (over ridges), oblique stripes (possibly parts of more complex elements).

The ridging is very unusual.

The sherd bears pencilled numbers '26' and '?58. 0[n.]'. The former is unlikely to be from 1911; the latter might be part of an old Trench + Level number but is now indecipherable.

837 (825) Φ 11/? (FIG. 47)

L. 0.098; D (of body) 0.030.

Body sherd of stirrup jar.

In cracking brown to black paint: spirals and ?foliate filling.

For the motif cf. Mountjoy 1983, 268 and fig. 2 nos. 68; but **832** is not Ephraean.

with urchin; the bands and cross elements have added single white lines.

Cf. Mountjoy 2003, 95 no. 268 and fig. 4. 20; 1999, 894 no. 10 and fig. 363.

LM I A.

Pencilled numbers '21' and '33' are unlikely to be from the 1911 excavation.

Cf. Mountjoy 2003, 76 no. 165 and fig. 4. 11.

A pencilled number '23' is unlikely to be from the 1911 excavation.

Semifine buff-orange fabric with darker inclusions; WT.

Pale slip o/s.

In faded black-brown paint: bands and part of a spiral.

Cf. Mountjoy 2003, 63 no. 62 and fig. 4. 5.

-(MM125) (FIG. 48)

Previously published in Barber 1974, 39 and pl. 4 f, where it was treated as a local piece.

H. 0.27.

Joining fragments of much of upper part of stirrup jar (see also **838**); the two stirrup handles and disc survive, as does part of the spout and another small vertical handle on the side opposite the spout; a relief band at the base of the neck.

Semifine, consistently coloured, reddish fabric with (mostly) small inclusions.

In red paint: on top of the disc, a cross; the handle roots, the relief band, and probably also the spout, ringed; on the shoulder, grass pattern, then 2 thick cc bands; on the body, linked spirals, then another cc band, with slight traces of a second.

Cf. Mountjoy 2003, 63 no. 62 and fig. 4. 5, spiral, 92 no. 237 and fig. 4. 18, grass pattern in upper zone: LM I B.

838 (601/2) Φ 11/18

L. (of 5 joining) 0.11.

6 body sherds (5 joining) + 7 others uncat (3 \times 2 joining) of large jar, almost certainly from –(MM125) above, although possibly from more than one vessel.

Decoration: parts of 2 cc bands and spiral(s).

Pencilled numbers '13' on some sherds are unlikely to be from the 1911 excavation, a number '152' (or '162') might be.

839 (590) Φ 11/9 (PLATE 22)

L. 0.053.

Body sherd from shoulder of large jar or jug.

As no. **839** (596), but less gritty; WT.

In reddish-brown paint: two reeds (crossing) and thick central stem.

840 (596) Φ 11/9 (PLATE 22)

L. 0.082.

Body sherd of large jar (as **839**).

Pinkish, quite gritty fabric; WT.

In reddish paint: reeds across 'sea anemonies' (FM 27).

Cf. Mountjoy 2003, 88 no. 222 and fig. 4. 16, 94 no. 256 and fig. 4. 19—reeds only.

841 (587) Φ 11/15 (FIG. 47)

L. 0.07.

Body sherd from shoulder of piriform jar.

Fine orange-buff; WT.

*Uncertain forms***844** (597) Φ 11/? (FIG. 48)

L. 0.053.

Body sherd of ?closed vase.

Fine, light brick-coloured fabric.

In glossy reddish paint: parts of a ?cc band and a ?spiral.

?Post-prehistoric.

845 (604) Φ 11/9 (FIG. 48)

L. 0.069.

Body sherd of large closed vessel.

Semicoarse; red-brown surfaces with thick purplish core.

Coated o/s with creamy slip.

In reddish paint: vetch/sage pattern.

Cf. Evans 1921–36, ii. 471–2 and figs. 276 *h*, 277; Warren 1999, pl. CCVII: P1848; Mountjoy 2003, 63 no. 61 and fig. 4. 5.

LM I A or sub-LM I A.

846 (588) Φ 11/18 (PLATE 22)

L. 0.07.

In reddish to black paint: linked closed tangent spirals with central disc/medallion (added white spots on disc).

Cf. Warren 1999, pl. CCVII: P1193.

842 (581) Φ 11/16 (FIG. 47)

H. 0.042.

Body sherds (2 joining) from shoulder/neck of jug. Fine, dark buff.

Thin cream slip o/s.

In black-brown cracking paint: cc bands on neck, a thicker band on the shoulder with pendent foliates (careless); in the field below, part ? of a pictorial design, possibly a bird's wing.

Cf. Mountjoy 2003, 115 no. 462 and fig. 4. 28.

Possibly part of an 'Alternating' composition (Coldstream and Huxley 1972, 296–303 and fig. 96).

843 (586) Φ 11/? (FIG. 47)

H. 0.085.

Body sherd of shoulder of large squat jug.

Dark fabric with greyish biscuit and redder outer surfaces.

Cream-coated o/s.

In reddish-brown paint: bits of 2 cc bands, foliate band, 3 more cc, then interlocking quirk and ?foliate band.

Mountjoy 2003, 115 no. 60 and fig. 4. 28 provides an approximate parallel for the shape and foliates.

Body sherd from shoulder, perhaps of BS jug.

Fine, brick-coloured fabric, greying towards the core; unpainted i/s.

Coated o/s in streaky paint, varying from reddish to black, with two white cc bands superimposed.

847 (592) Φ 11/16 (PLATE 22)

H. 0.069.

Body sherd of ?.

Fine, dark buff fabric.

Slipped white o/s.

In streaky black paint: 3 cc bands.

848 (595) Φ 11/? (FIG. 48)

L. 0.042.

Body sherd, perhaps from neck of beaked jug; ridged.

Fine, thin, brick-coloured fabric.

In reddish paint, originally lustrous but now worn: ?cc bands, then zone of discs or blobs.

Uncatalogued: sherds with linear decoration only.

EPILOGUE

This article provides a further contribution to the publication of outstanding material from the 1911 excavation at Phylakopi,⁵ enabling scholars to use the pottery for comparative purposes and to make their own assessments of its significance. It is hoped that some will be encouraged to pursue the suggestions for research—often studies of individual forms or motifs and/or inter-island comparisons. Such topics are unglamorous, perhaps also unfashionable, but only by pursuing them will progress be achieved.

Our better understanding of the history of the Cycladic Bronze Age, indeed of all aspects of Cycladic society of that period, is dependent on refining the pottery sequence and the writer's concern with this process is reflected in the bent of the text towards points of chronology. This is however by no means the only area to which study of the pottery described here can contribute and it is hoped that the form of presentation will enable its use in the investigation of others as well.

One result of this research has been to reveal a number of new details concerning the ceramic repertoire of Phylakopi; another to encourage review of various questions concerning the Bronze Age pottery and chronology of the Cyclades in general and Melos in particular.

Among features recognized for the first time at Phylakopi may be listed the MC feeding-bottle form (in CW), one or two previously unrecorded potmarks, and the inturned-rim bowl with beaded rim as a prominent form in DB ware.

Some possible classes of imports have been tentatively identified on the basis of their fabric, viz. a pale ware with Geometric decoration and a group of DB pottery with greyish paste, the former of uncertain provenance, the latter probably from Akrotiri.

A few individual items have been assigned to sources on Aigina (Matt-painted) and Kea (LL) and several sherds, apparently Middle Helladic, are of kinds not previously recognized at the site. Some pieces may represent the Mainland B&R style. The possibility of a Cycladic provenance for some 'Mainland' matt-painted pieces has been mooted and the more general question raised of the relationship of mainland Matt-painted pottery to Cycladic White.

A number of vessels, seen during recent study but not found by the writer in the course of earlier work on the 1911 finds (Barber 1974), have been assigned to their exact excavation contexts on the basis of surviving records.

Problems of fabric identification have been given some consideration. There are several points in the Melian sequence where the fabric and paint types of different classes merge into one another and, from the point of view of chronology, the usefulness of these categories for anything other than the broadest classification is questionable. Accordingly, it often seems more profitable to put the major emphasis on shape and decoration, where categorization is more clear-cut, illustration more informative, and comparisons between sites and contexts can be better founded.

Nevertheless, it is important that such questions should continue to be addressed. The most pressing of these is the better distinction of different types of burnished ware. Burnished pottery was used throughout EC and early MC times but even superficial inspection indicates a marked difference between the Heavy Burnished, with prominent tool marks, characteristic

⁵ A few small finds from the 1911 season were found with the pottery and will be published separately. It is impossible to state with absolute certainty that no further

pottery from 1911 season will be identified in the Melos Museum, or conceivably elsewhere, but it seems most unlikely that more than a few pieces remain to be located.

of the earlier EC period, and the glossy slipped (at least at Phylakopi) and burnished pottery of MC. The 'transition' from the one to the other is, however, obscure and may well have chronological significance.

Suggested here as possibly important stages in this process are (1) the emergence of the EMP Geometric class with light-on-dark decoration, where the surfaces, often an uneven red in colour, are sometimes quite smoothly and highly burnished and (2) two shapes in particular, partly slipped and burnished, which it can be claimed stand at the beginning of the distinctive MC burnished series.

These two are the classic Melian bowl (193 etc.) and the triangular-rim bowl (184 etc.). Apparently transitional elements in the former are the decoration, utilizing typical Geometric motifs over a white slip (also a standard technique in the Geometric class) on the rim, and the burnish which, though even, seems generally less glossy than on mature DB. The latter form, red inside and on the slope of the rim but otherwise undecorated, and almost always lacking a glossy finish, may belong to the same stage. Both are attested in I-iii contexts and were perhaps characteristic also of the phase originally identified as Phylakopi II-i (Atkinson *et al.* 1904, 254-9). From this starting-point, it may prove possible to define more fully a late EC III/Transitional stage in the pottery sequence.

Other observations are as follows:

1. The EC III A pottery among this material confirms its presence at Phylakopi, although its position in the local sequence cannot be further elucidated. More work on the relationships between the burnished pottery of EC III A, the Dark-faced Incised class of early EC III B, and related material from Crete is highly desirable.

2. In the case of the Geometric (EMP/SMP) classes, distinctions previously established—in shape, decoration and fabric—seem generally confirmed, as too does the fact of some overlap between them. It should now be possible to further clarify the significance of particular characteristics.

3. The cultural continuity between the First and Second cities, emphasized by the first excavators, finds further expression in the fact that fabrics (EMP/SMP), broadly attributable to the phases preceding and succeeding the major stratigraphical break, merge into one another and it therefore seems arguable that pieces in intermediate fabric may represent the stage of transition.

4. Clarification of the chronology of this transition in ceramic terms is badly needed and a means of making progress here has already been proposed in the context of the development of burnished pottery.

If that proves possible, it will be more logical to see the destruction of Phylakopi I, not as marking the end of EC III⁶ (a view in any case incompatible with a pottery-based chronology where the periods are defined by changes in ceramics rather than significant events in the history of a single site, however important) but as having taken place *within the transitional phase* defined above.

5. The degree to which Geometric pottery continued in use in the Second City has long been a matter of speculation. In the catalogue above have been noted a not insignificant number of examples of links, mostly in respect of decorative motifs, between the early

⁶ This equation became established because of the isolation of Phylakopi as, for many years, the only Cycladic site with a stratified sequence, and its consequently

dominant influence on the Cycladic chronological framework.

Curvilinear style (CW), decorated DB, and the SMP variety of Geometric. As well as potentially throwing light on the history of Geometric decoration, this combination should help in achieving a closer ceramic definition of the early MC period.

6. Although there is less to be said about the LC sequence, largely because it is more closely tied to the better known periods of first Crete and then Mainland Greece, there are signs that a closer definition of LC II can now be achieved. Later, some obscure pieces, especially in the Hard Painted category, suggest that there may be further to go in classifying the pottery of LC III through the identification of non-Mycenaean features of the local tradition even in that period.

Attempts to establish and refine a Cycladic pottery sequence inevitably raise questions as to the extent to which a unified system can be applied to different islands. It has seemed to the writer that, so far, such a system can be shown to be both logical and desirable, without denying that each island will show individual variations on the norm. As for the chronological significance of ceramic features, it seems sensible to accept, and apply more generally, clear chronological distinctions, at whatever site they happen to be stratigraphically attested (for example the association of the DFI category with an early phase of EC III B at Phylakopi) until there is persuasive contradictory evidence from elsewhere.

It is also important to keep under review the geographical extent of the 'Cyclades' in prehistoric times. We should not allow the current administrative definition of the area unduly to influence our view, although the geographical and climatic factors which conditioned the Bronze Age cultural area are still operative to some degree, even if weakened by modern technology and means of communication. In the Early Cycladic period, a strong case can be made for including sites on the Greek mainland, on Crete and the coast of Asia Minor in the 'Cycladic' area and it is conceivable that the same is true in Middle Cycladic times. The well-defined Aegean *koine* of LH III C/late LC III further cautions us to beware of taking for granted today's administrative divisions as representing the situation in prehistoric times.

Finally, it is encouraging to note that, in spite of the many question marks over the exact chronology of forms etc., the broader picture at Phylakopi is reasonably clear—a tribute, not least, to the skill and scholarship of the early excavators—and generalizations can be made with confidence. We should hold fast to these while trying to make further progress with the details.

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APPENDIX: THE SHERDS, THEIR STORAGE AND MARKING

1. The bulk of the sherds were stored in a series of wooden trays (PLATE 23), most of which carried two numbers, each in a different hand and size, together with a general indication of its contents ('Υστεροκυκλαδικά, Μινύεια, etc.) and the site name Φυλακωπή. The statements of content are in the same hand as the larger series of numbers, the site name as the smaller. The series with the large numbers is complete up to no. 28. To it must be added two boxes marked Μυκηναϊκά, in the same large hand, but without numbers of any kind. Box 10 is assumed to be an unnumbered box containing Cycladic White sherds (marked 'Υστεροκυκλαδικά in the large hand) since it is the only other unnumbered box and the only

one required to complete the series. The contents of box no. 27, marked Ὅστρακα Φλακωπή (*sic*) may have been regarded as Miscellaneous or have been collected at a different time.

For the purposes of this study, five boxes were discarded: no. 4 (marked Ὅψιανοί) was found empty, as was no. 13 (marked Ὑστεροκυκλαδικά); nos. 6 and 25, which lack any site name but are marked and contain Γεωμετρικά – Νεώτερα, perhaps from the broader locality of Phylakopi where such finds have been made (*A. Delt. Chr.* 1960 247; 1970 423, 434–8); no. 20, which is marked in pencil as containing finds from Δοκιμαστικὰ Ἀνασκαφαί 26–10–1964, not carried out by the British School.

The smaller series of numbers (the highest is 34) have been ignored since ten of them are unaccounted for and the larger series, as well as being complete, is authoritative in its descriptions of the contents.

Although it is very unlikely that the groupings of material represented by the contents of the individual boxes have any further significance beyond that of general similarity, this information has been retained in the cataloguing system (see p. 47).

Other numbers, pencilled or sometimes inked onto sherds, appear to represent earlier attempts to categorize and/or join the material, work which was almost certainly not done by a professional archaeologist.

2. Some uncertainty surrounds the contents of four further drawers (as well as Box 27, above). These four have been shelved with the material from the 1970s excavations but labelled merely as 'Phylakopi ? – no context', without the indication, born by all other drawers in that series, of a date between 1974 and 1977. Of their contents, one sherd (LL with TTR decoration) is marked 'Ph Surface', another (small body sherd with dark line) 'Φ PLa 72'. The latter is certainly and the former probably from the 1970s excavations. If these are not intrusive into the collection, they may suggest that the material comes from that source. In that case, however, it is strange that only these two pieces bear indications of origin and, since I am assured by the staff of Professor Renfrew's excavation that significant sherds, such as many of those contained in the drawers, would have been marked, the assumption has been made that they are from the 1911 season and had become confused with the later finds when the excavation *apothekē* was damaged and material moved to the new museum store some 20 years ago. Nevertheless, they have been added to the main catalogue in italics, in case the arrangement of material should eventually prove to have further significance.

For the purposes of cataloguing these drawers have been lettered A–D, where A is Drawer 527 in the present storage sequence, B is 528, C 530, D 531.

The letter E has been assigned to Box 27 of the main sequence (Ὅστρακα Φλακωπή (*sic*), see above).

The headings of items from these sources include a question mark (Φ ? 11 / x).

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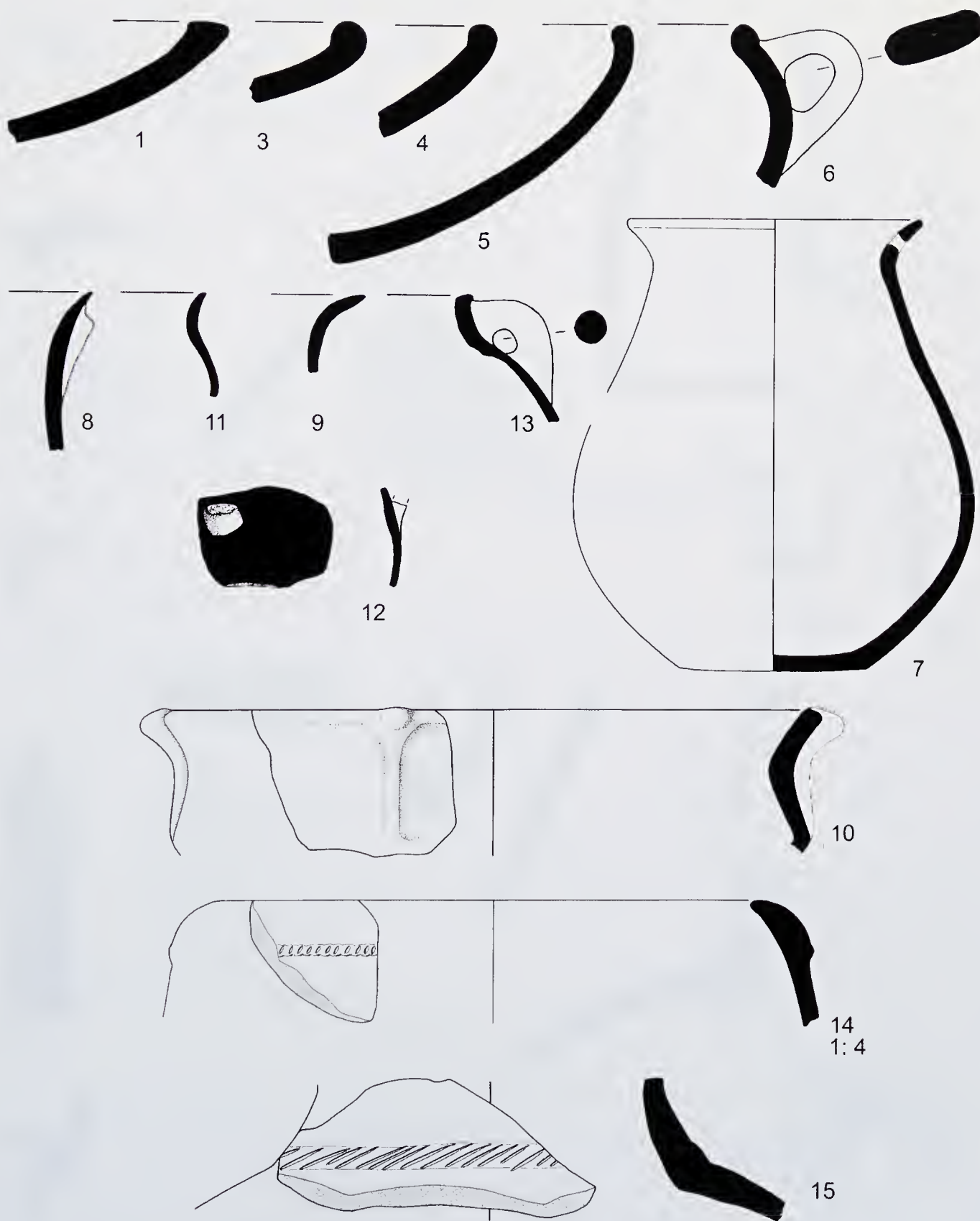


FIG. 1. Early Cycladic I-IIIa pottery.



FIG. 2. Dark-faced Incised and Talc Ware.

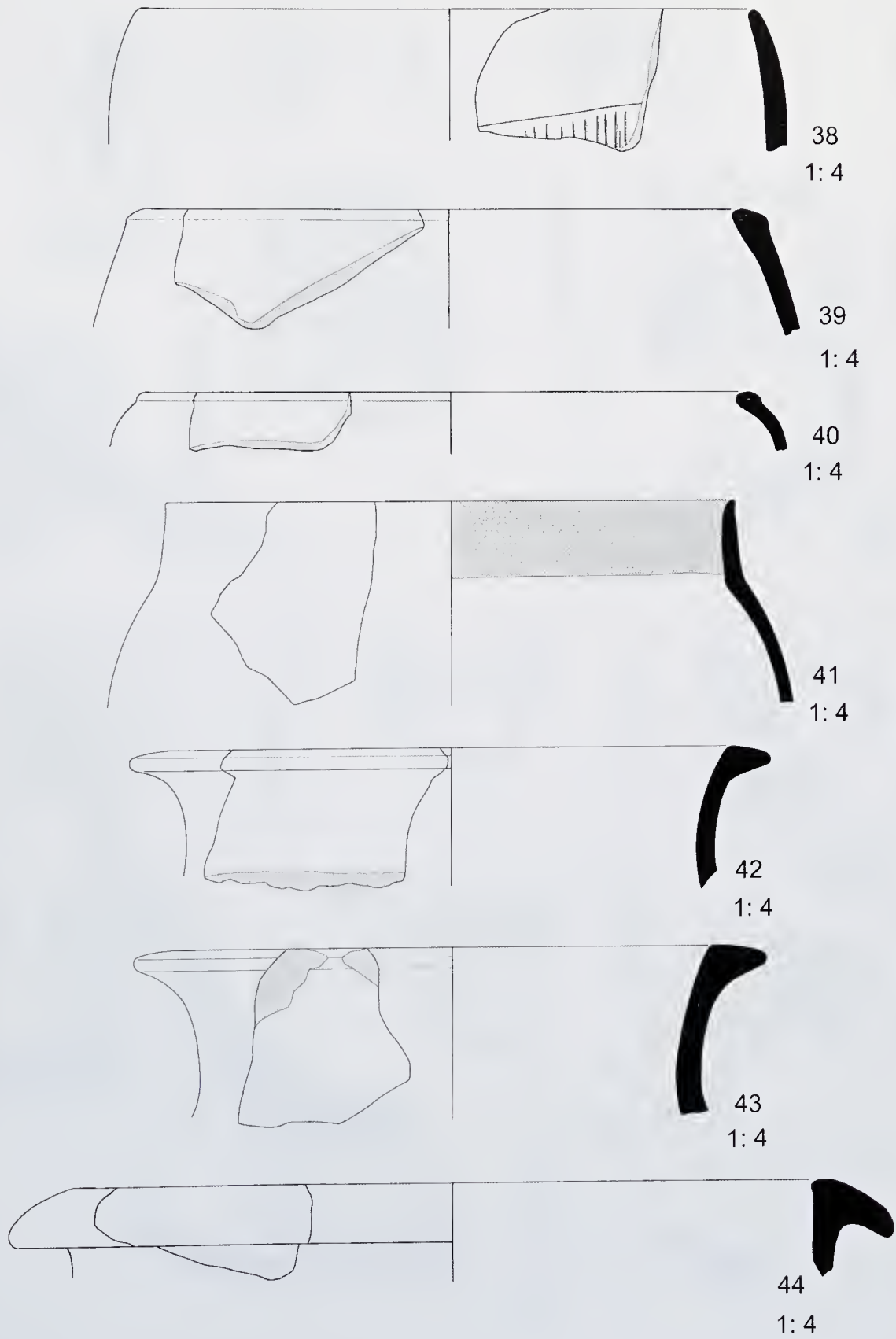


FIG. 3. Brown-smoothed Ware.

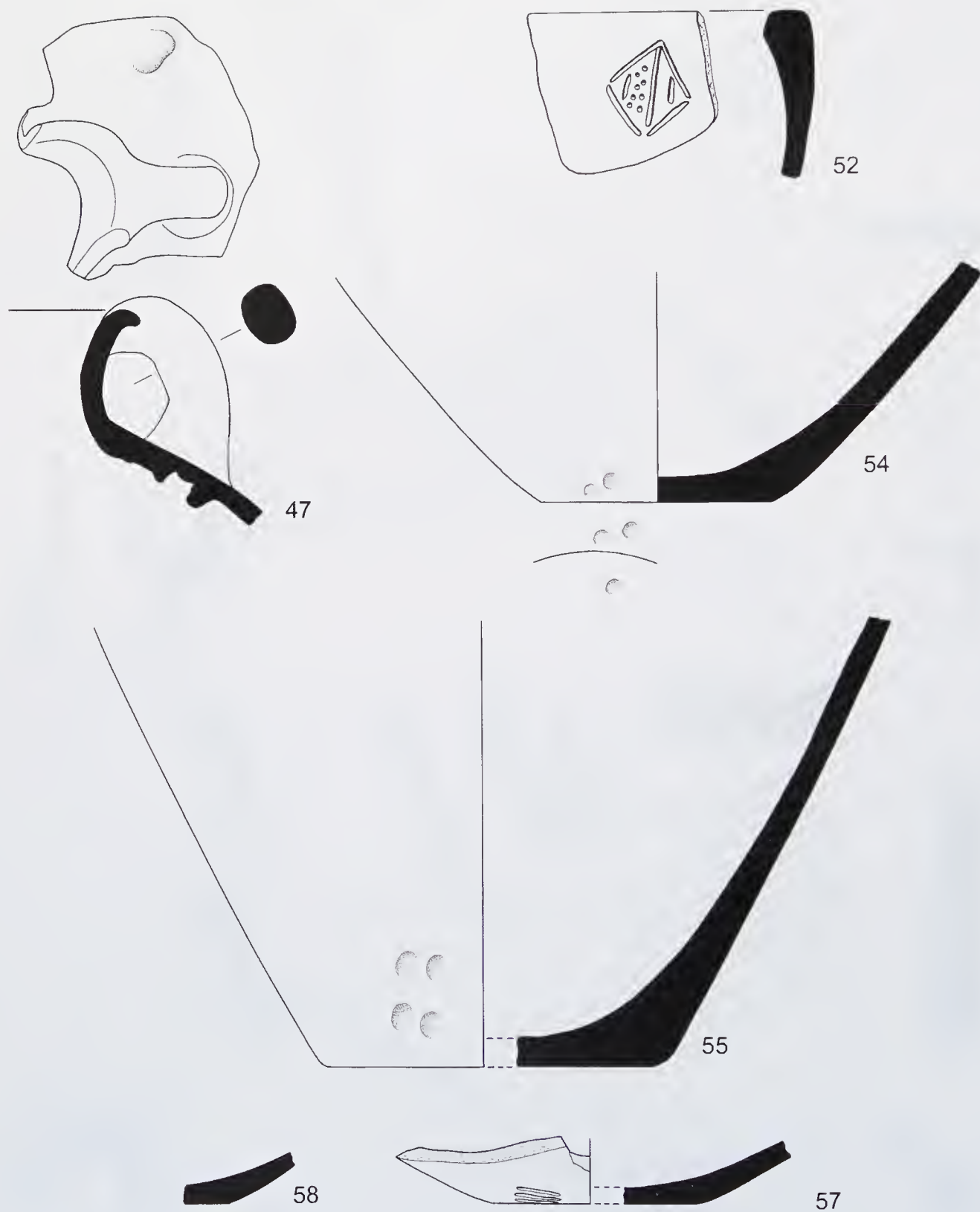


FIG. 4. Brown-smoothed Ware.



FIG. 5. Geometric pottery.



FIG. 6. Geometric pottery.



FIG. 7. Geometric pottery.

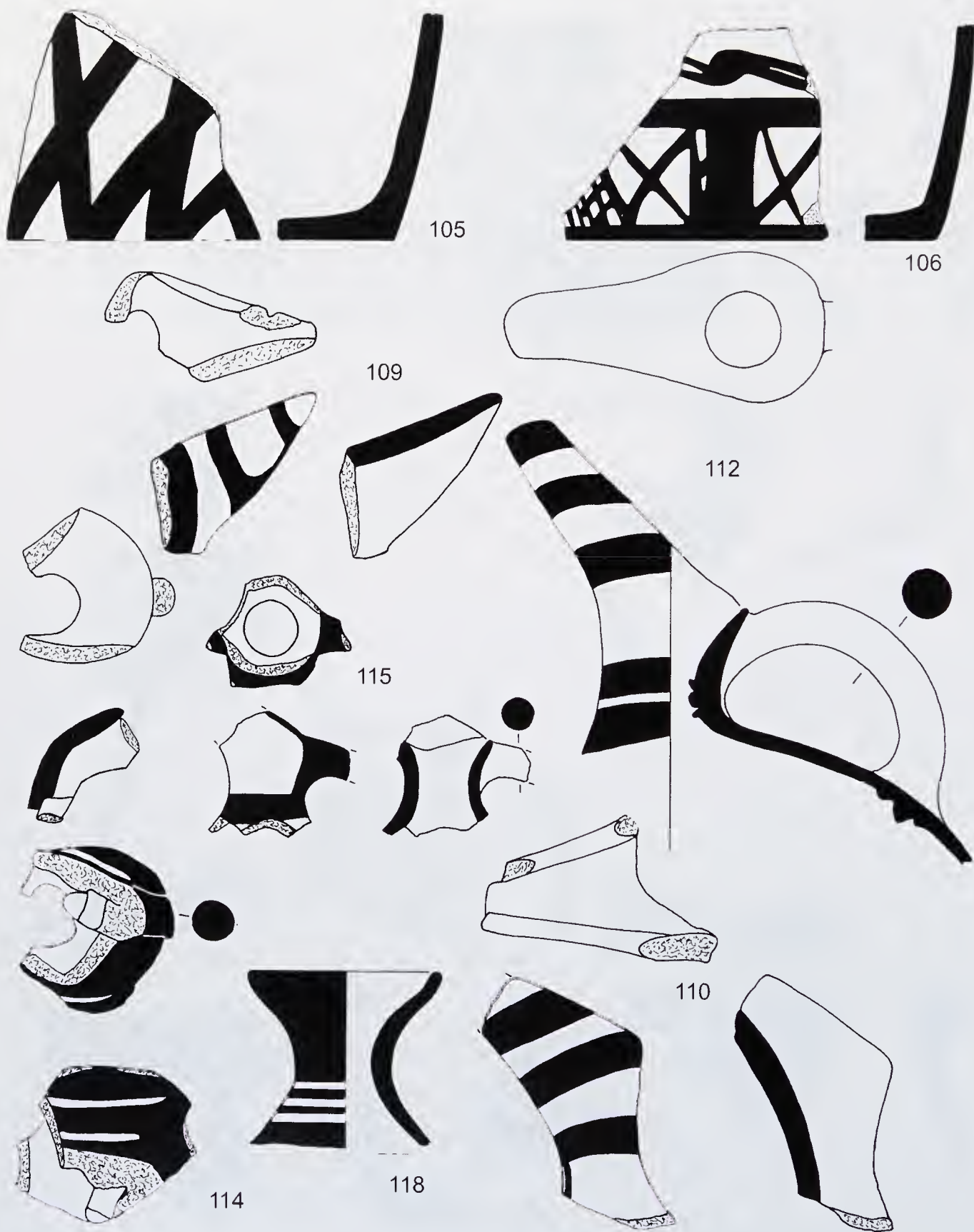


FIG. 8. Geometric pottery.

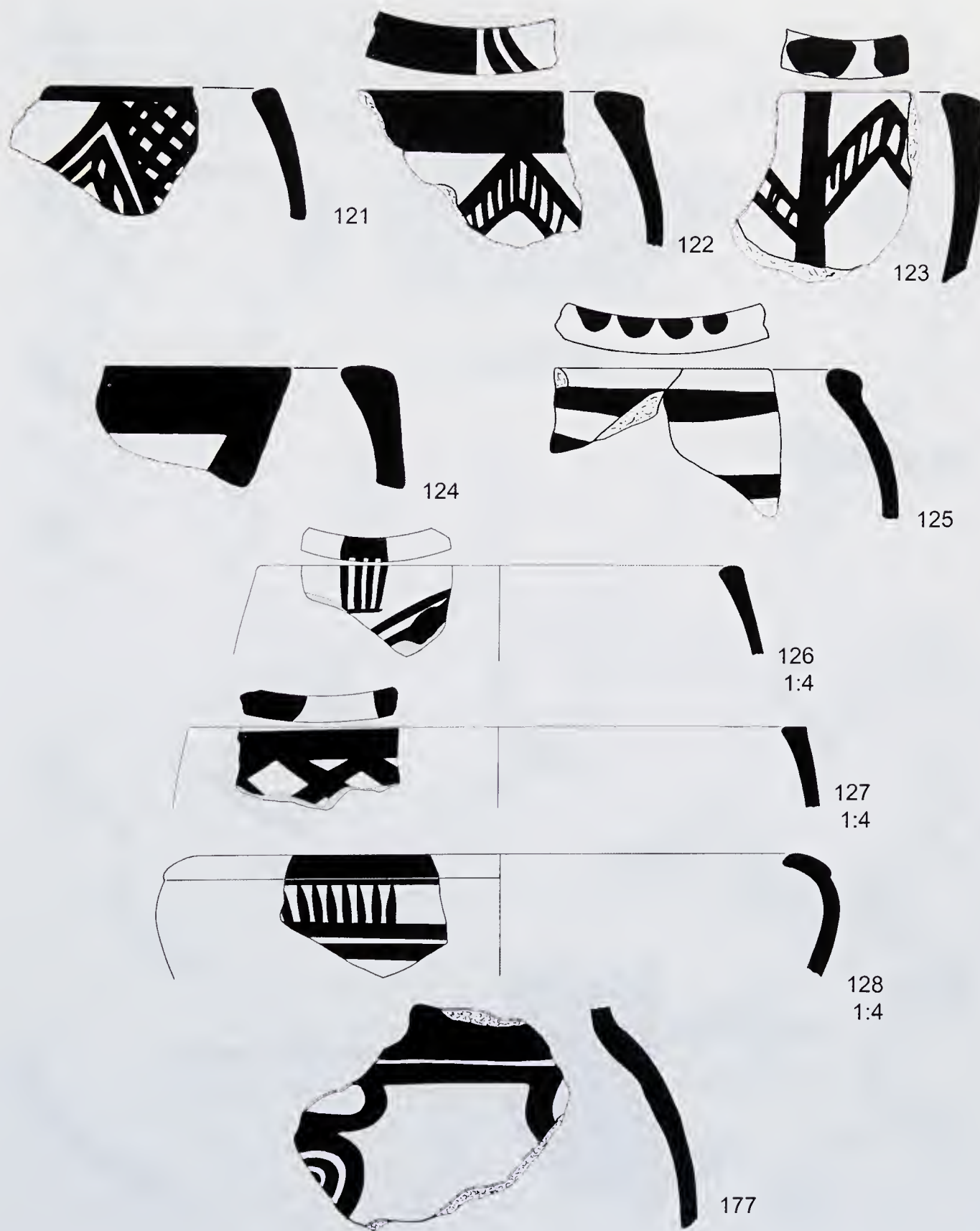


FIG. 9. Geometric pottery.

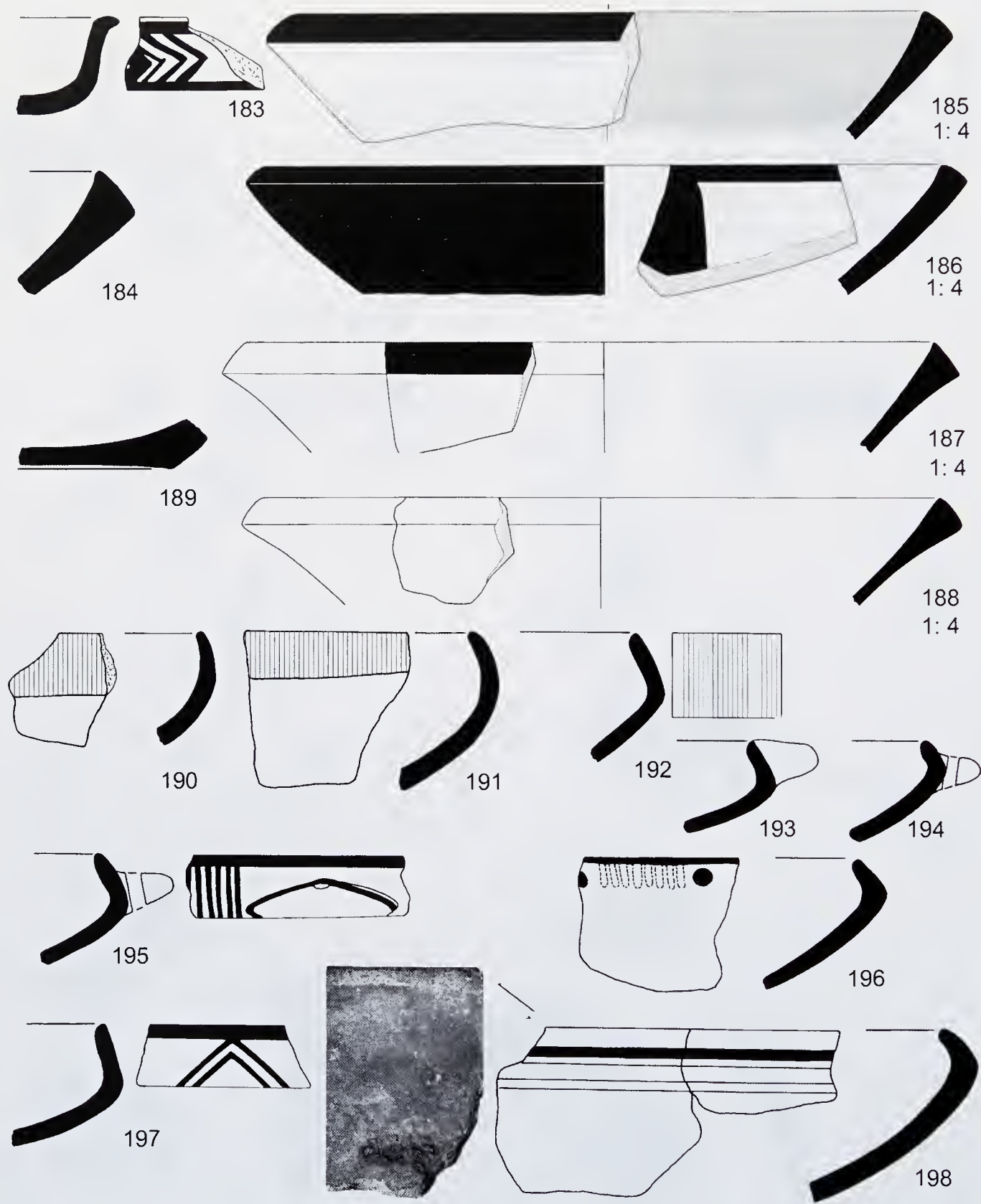


FIG. 10. Dark Burnished pottery.

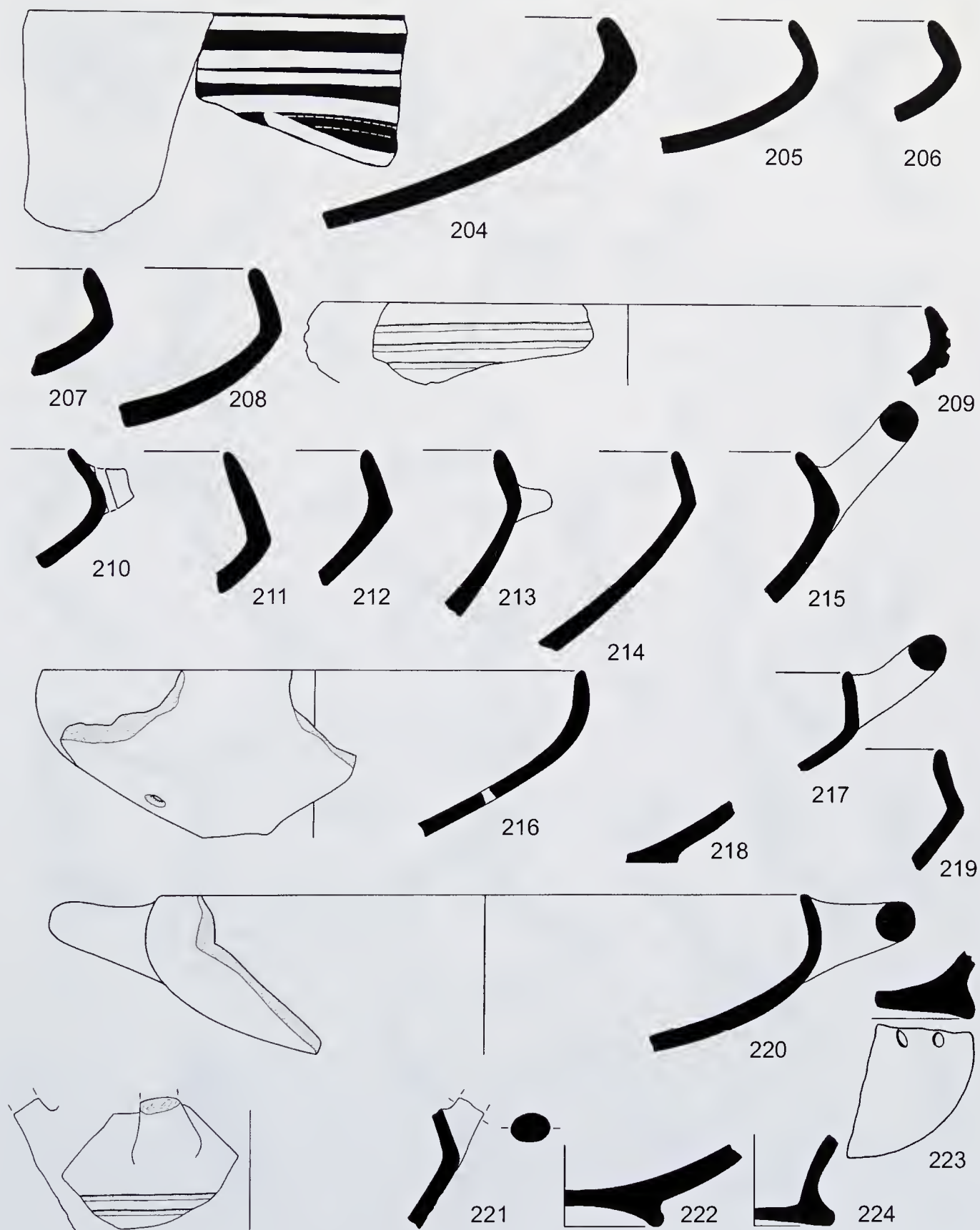


FIG. 11. Dark Burnished pottery.

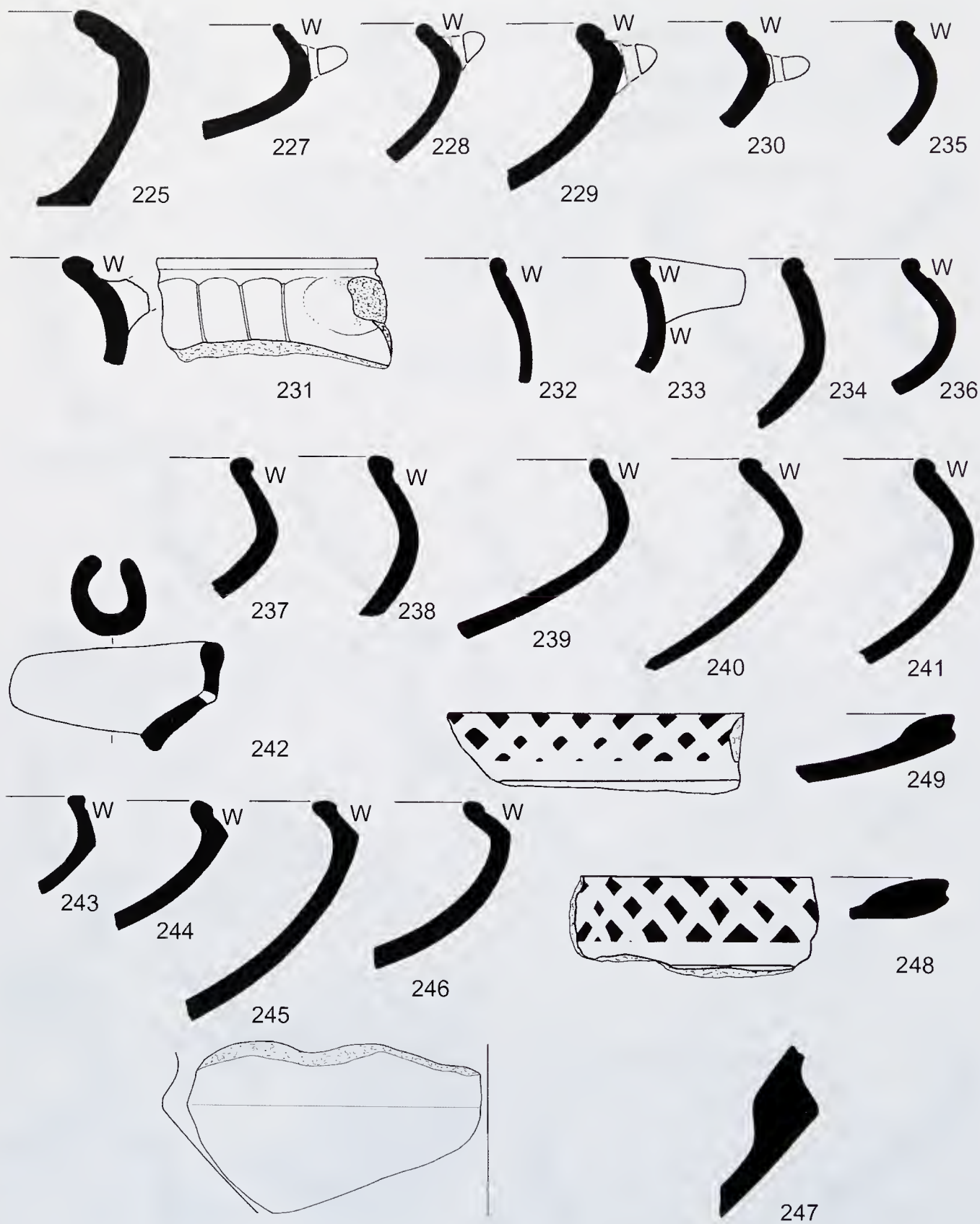


FIG. 12. Dark Burnished pottery.

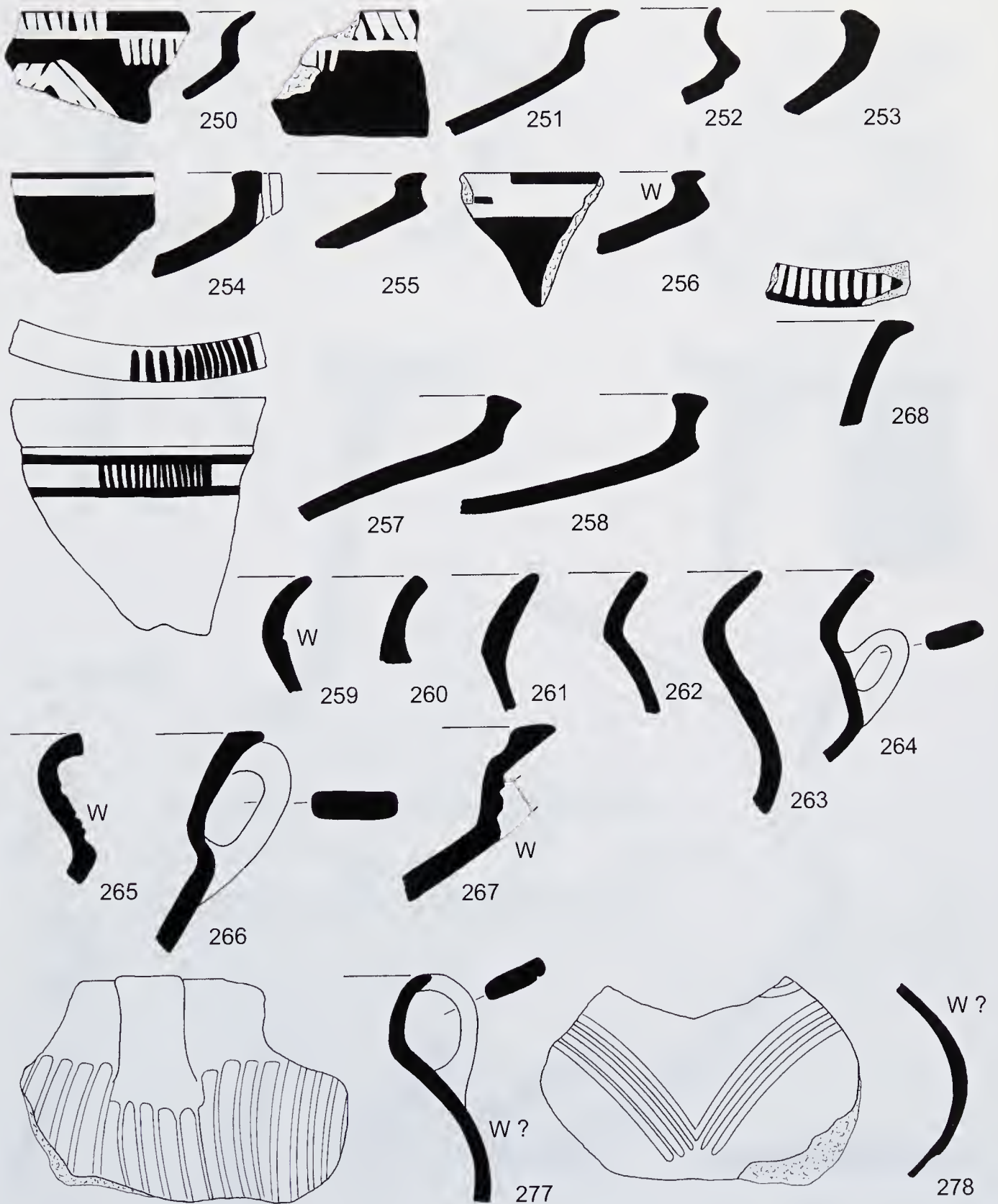


FIG. 13. Dark Burnished pottery.

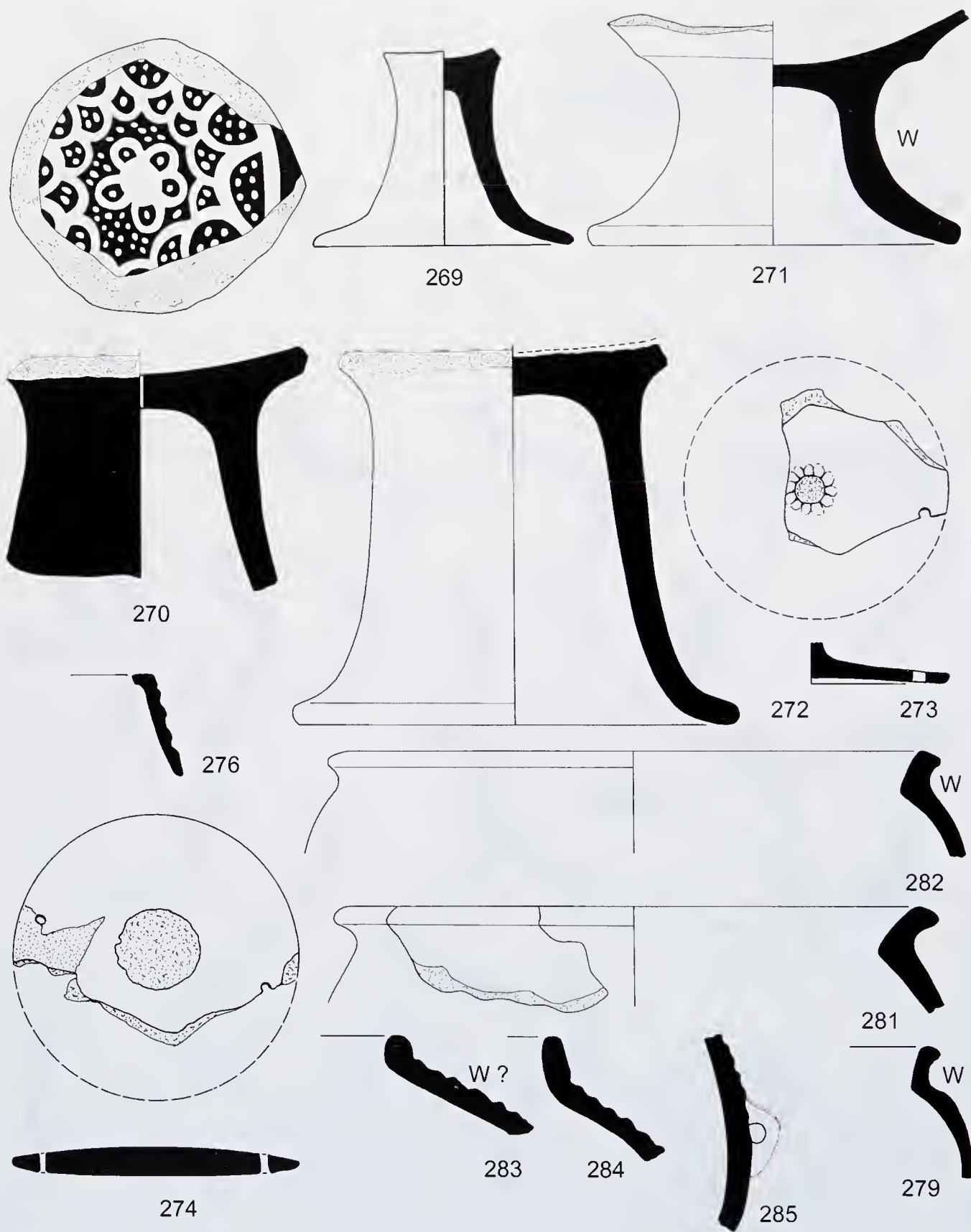


FIG. 14. Dark Burnished pottery.

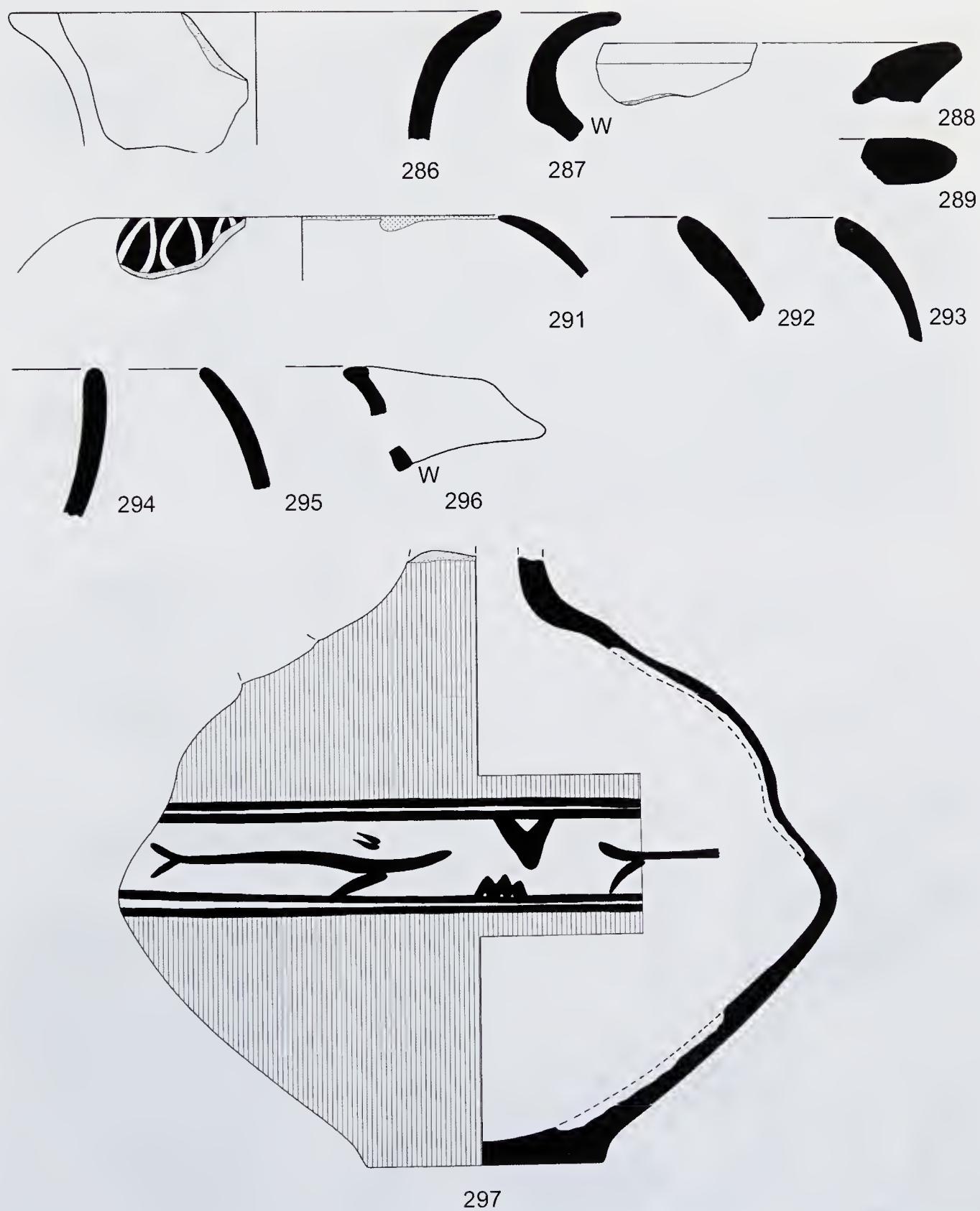


FIG. 15. Dark Burnished pottery.

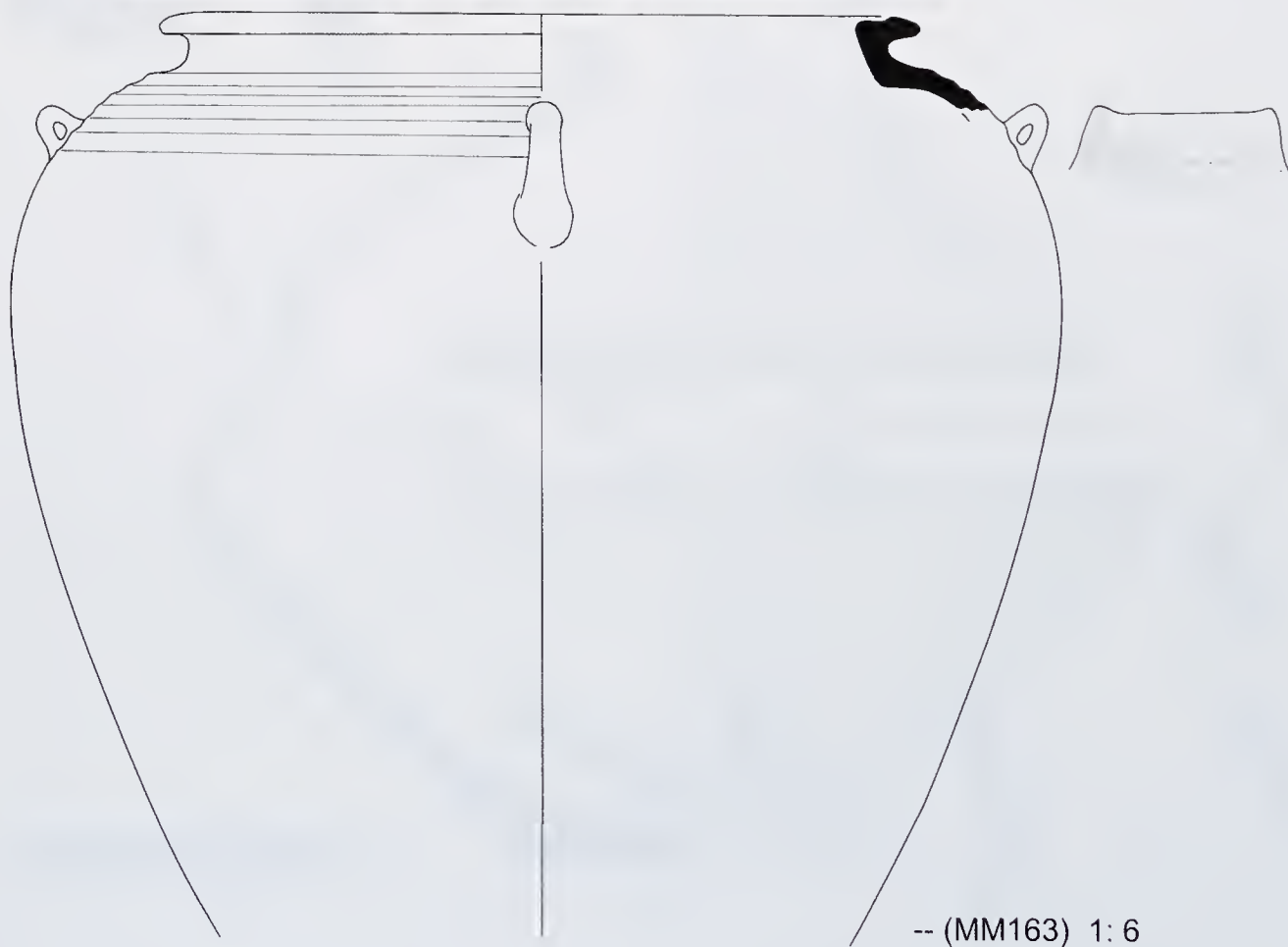


FIG. 16. Dark Burnished pottery.



FIG. 17. Dark Burnished pottery.

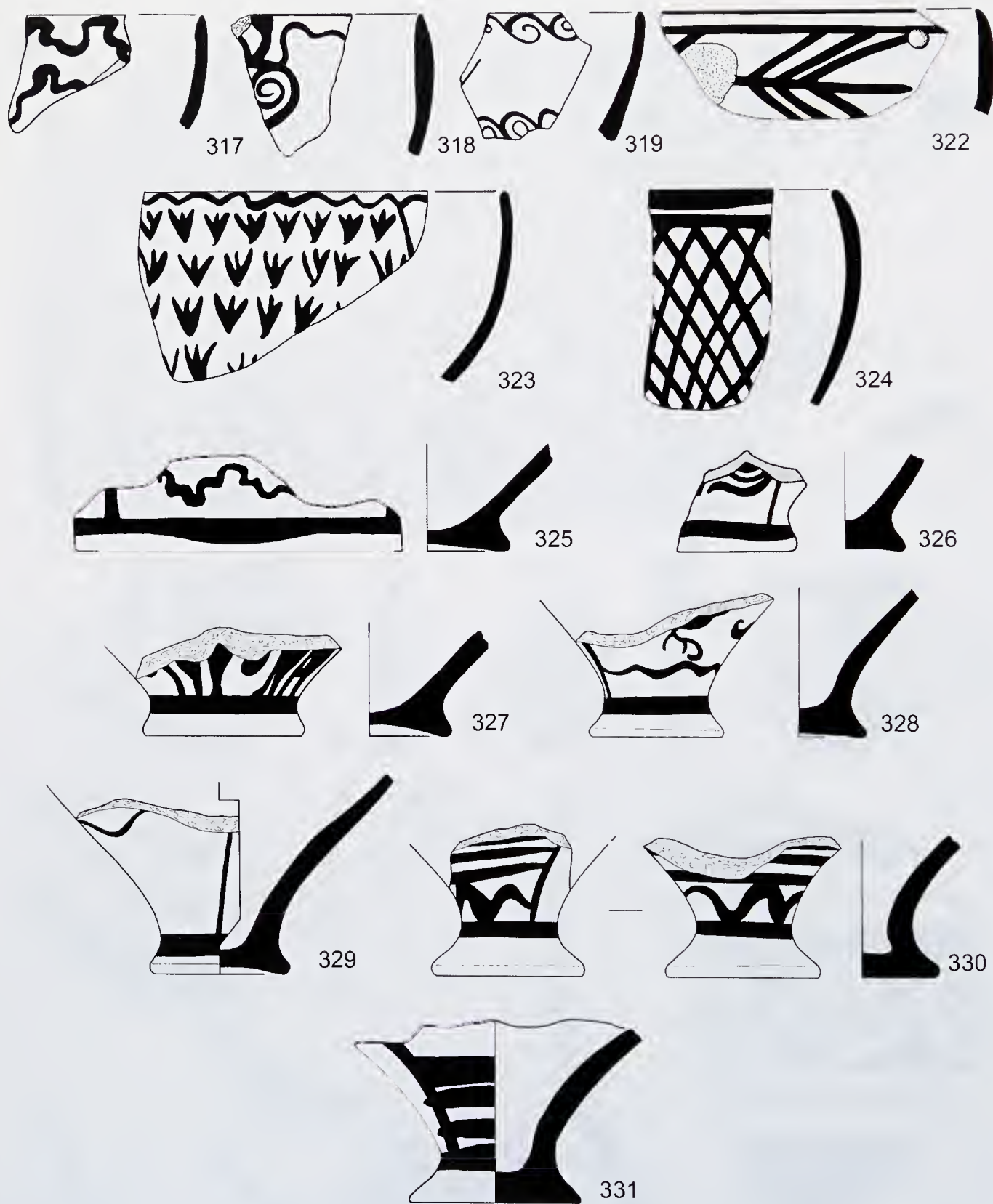


FIG. 18. Cycladic White pottery.

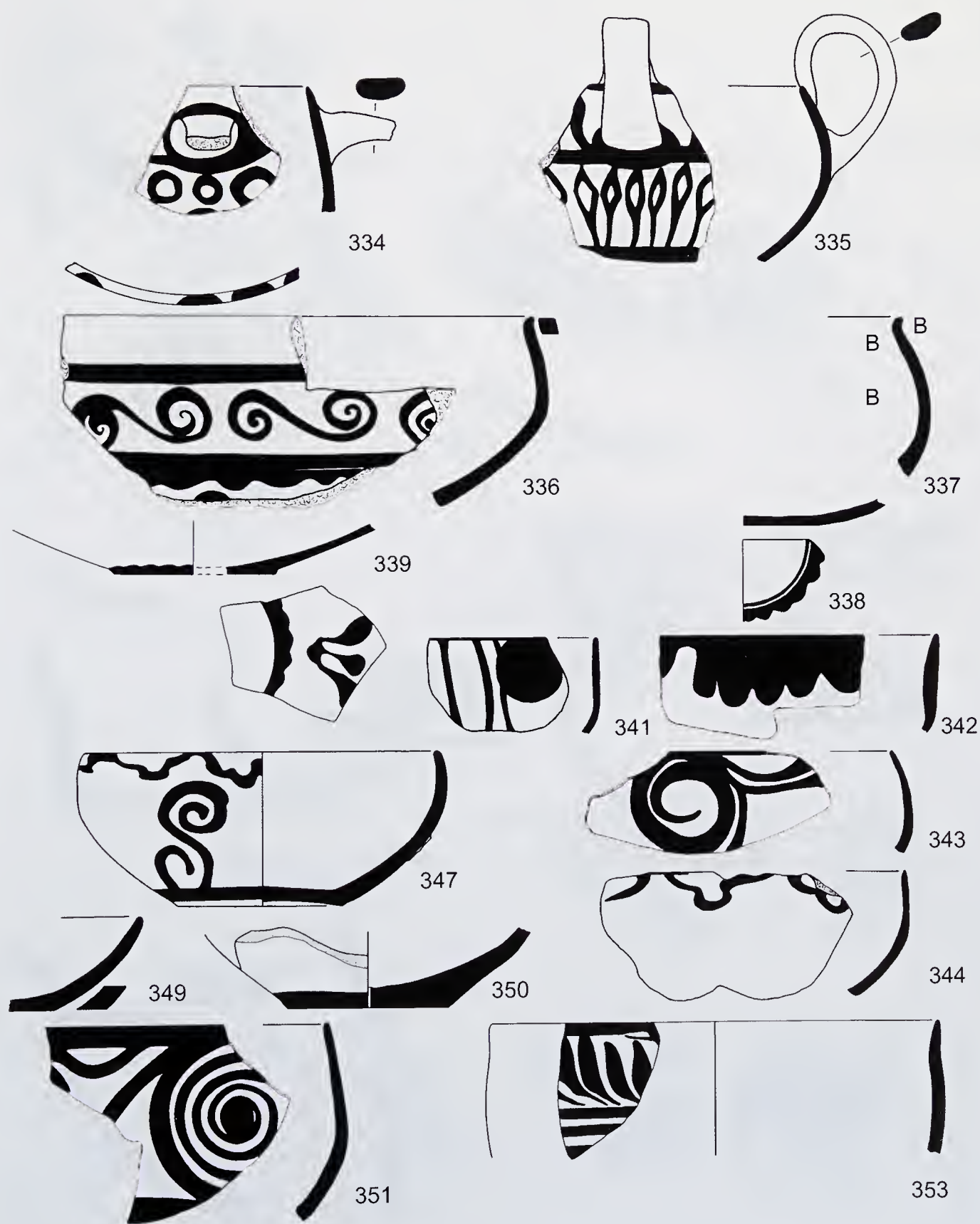


FIG. 19. Cycladic White pottery.

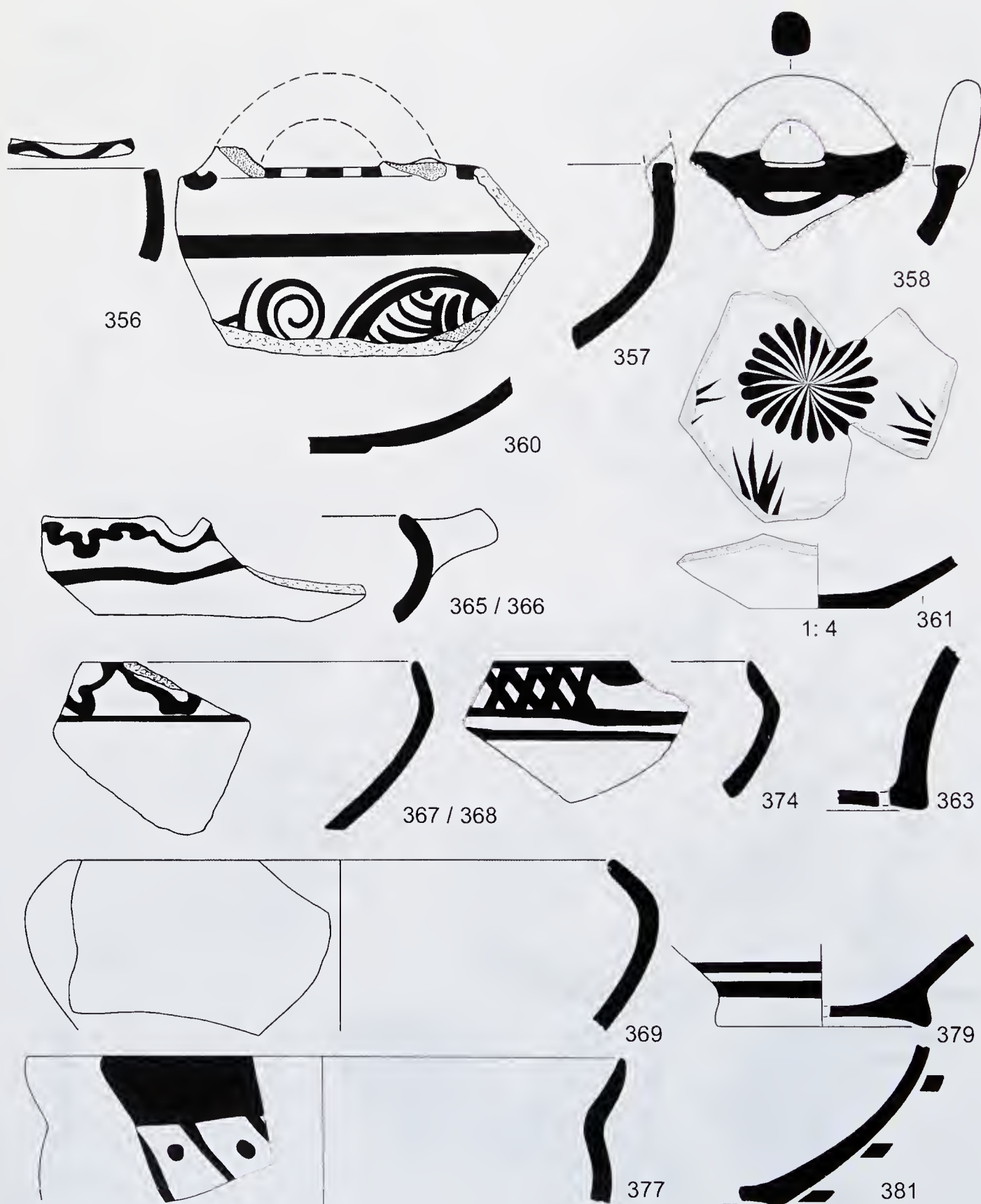


FIG. 20. Cycladic White pottery.

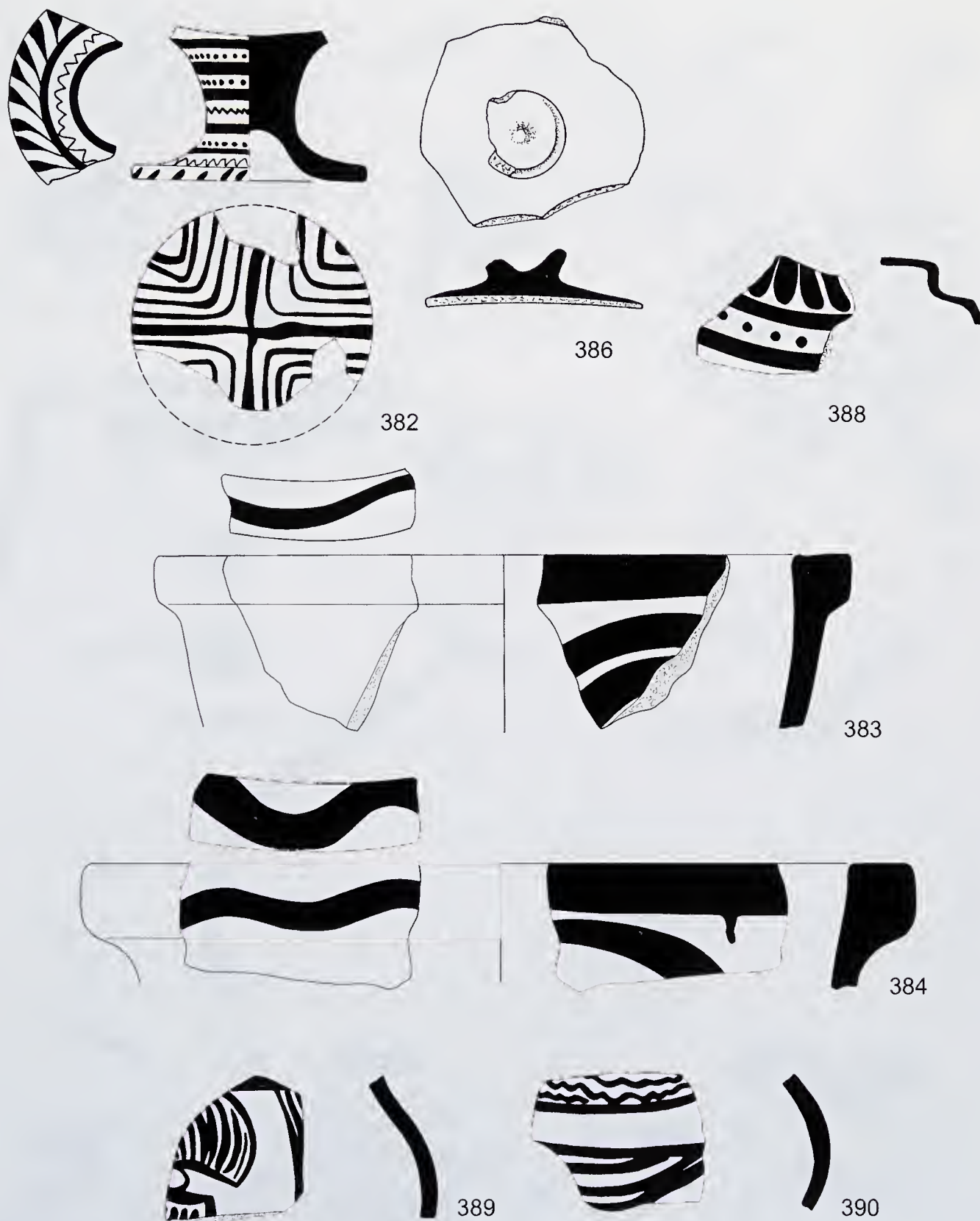


FIG. 21. Cycladic White pottery.



FIG. 22. Cycladic White pottery.



FIG. 23. Cycladic White pottery.

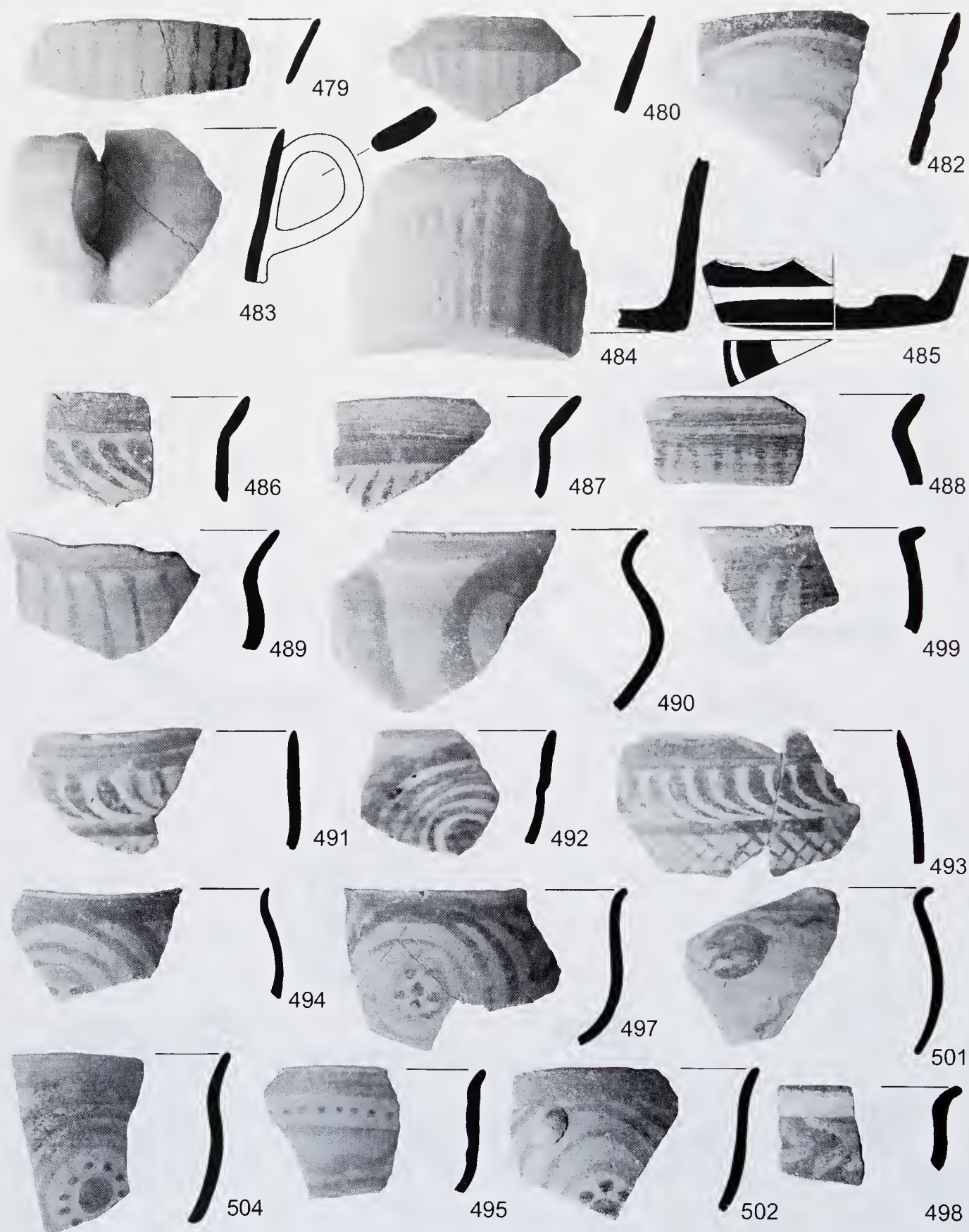


FIG. 24. Later Local pottery.

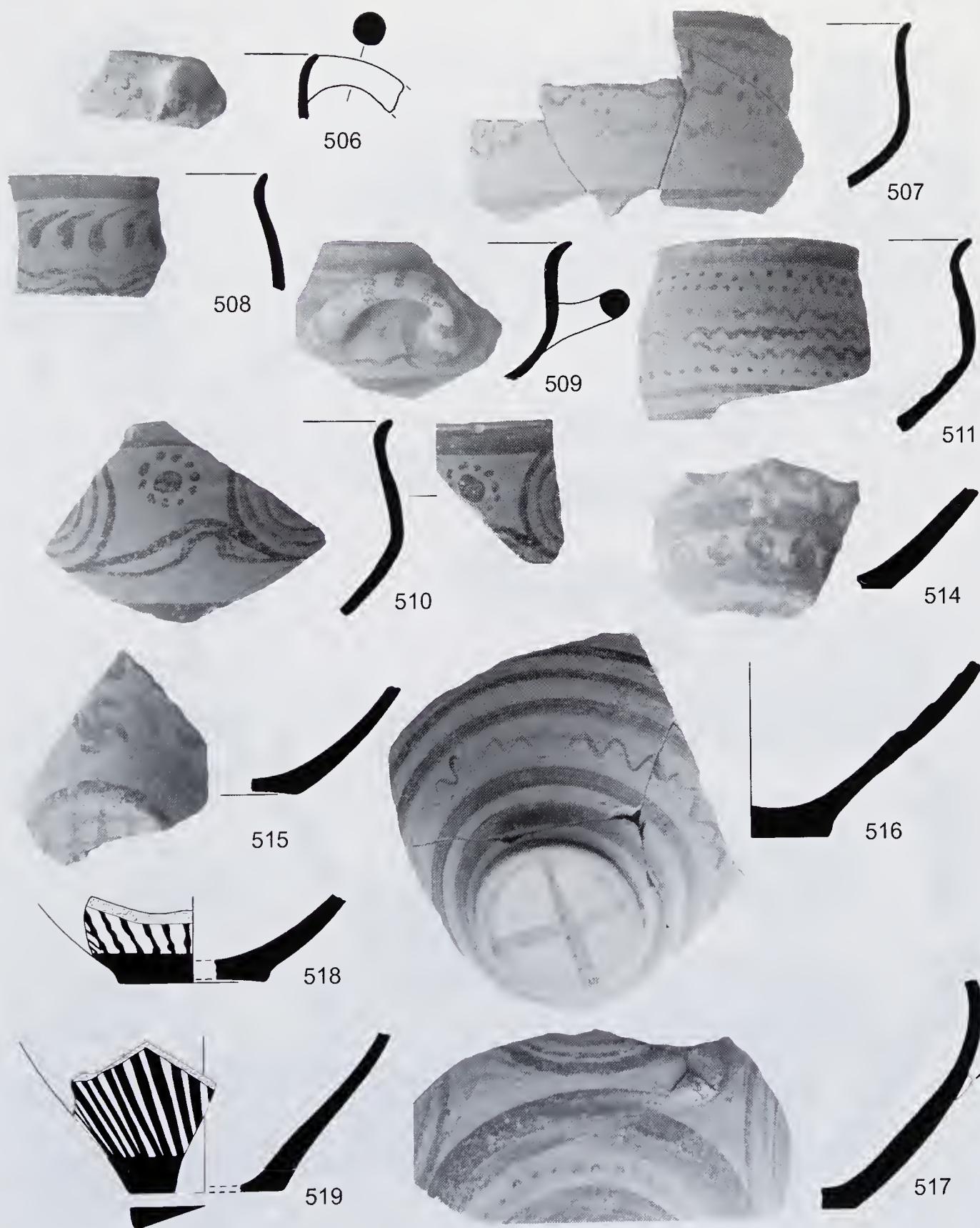


FIG. 25. Later Local pottery.



FIG. 26. Later Local pottery.

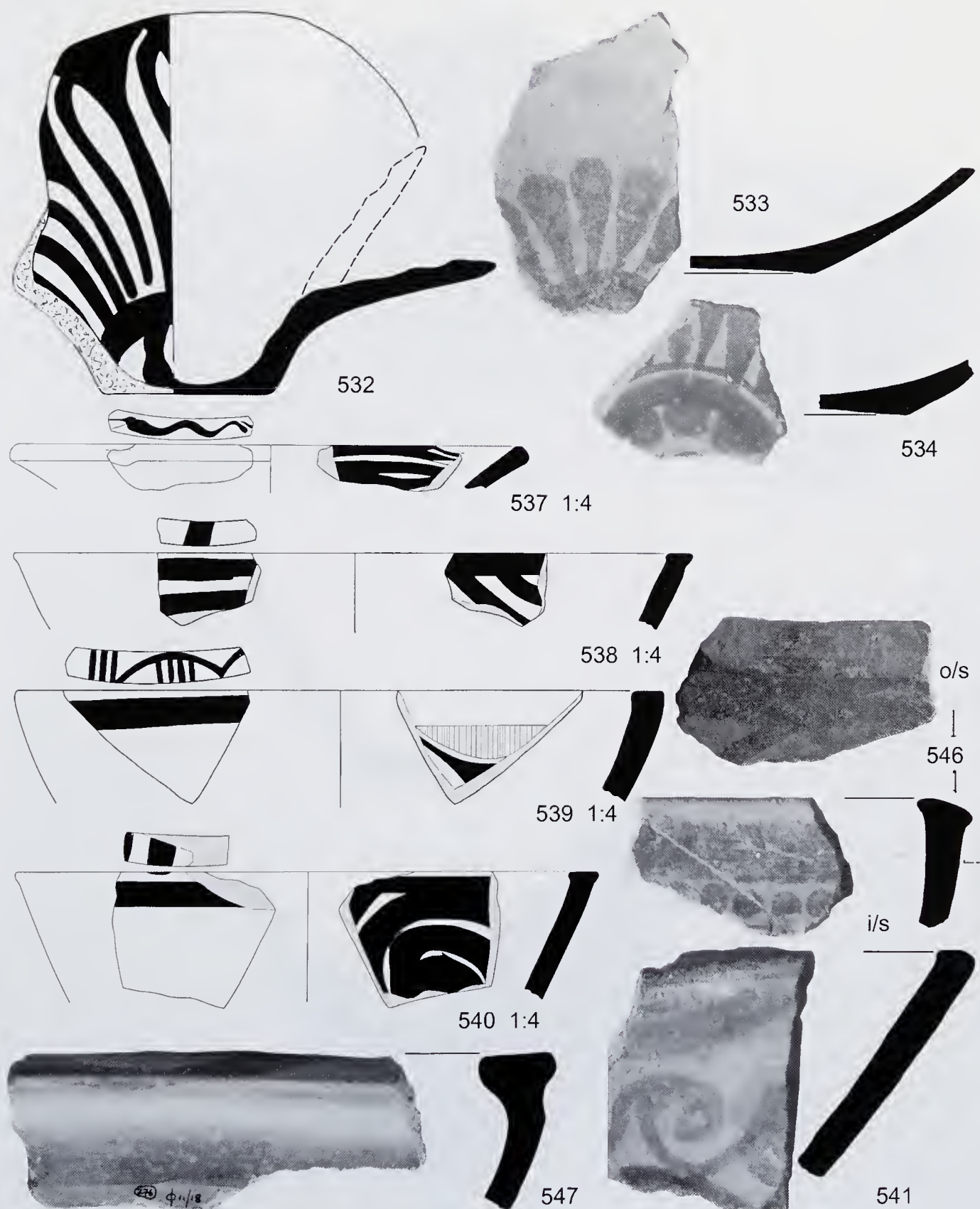
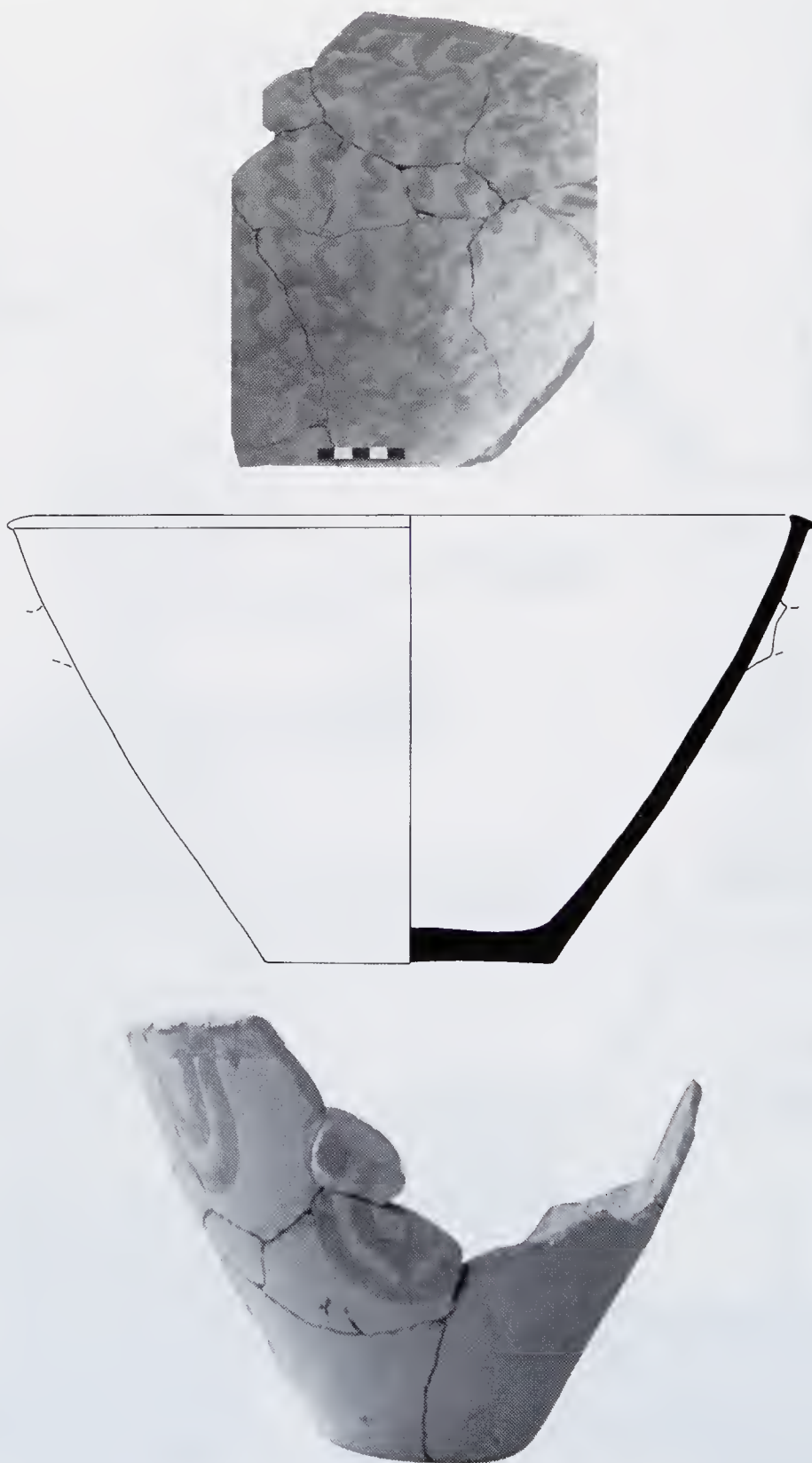
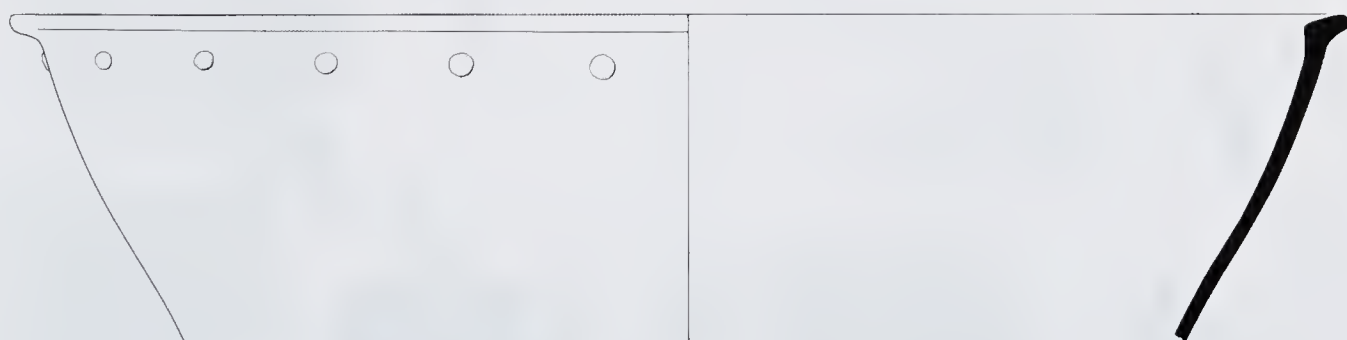


FIG. 27. Later Local pottery.



543 (Drawing 1: 4)

FIG. 28. Later Local pottery.



544 1: 9

FIG. 29. Later Local pottery.

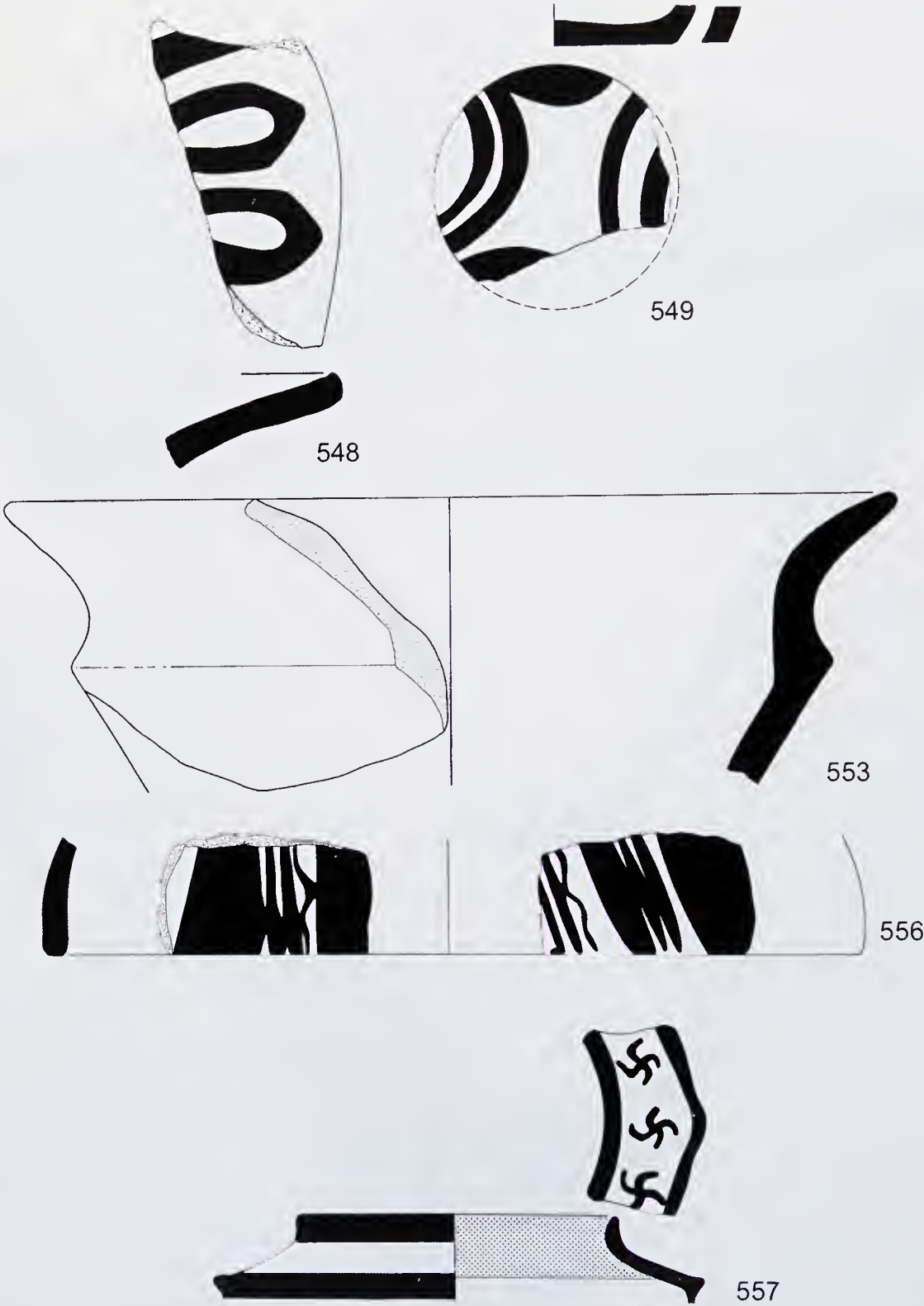


FIG. 30. Later Local pottery.



FIG. 31. Later Local pottery.

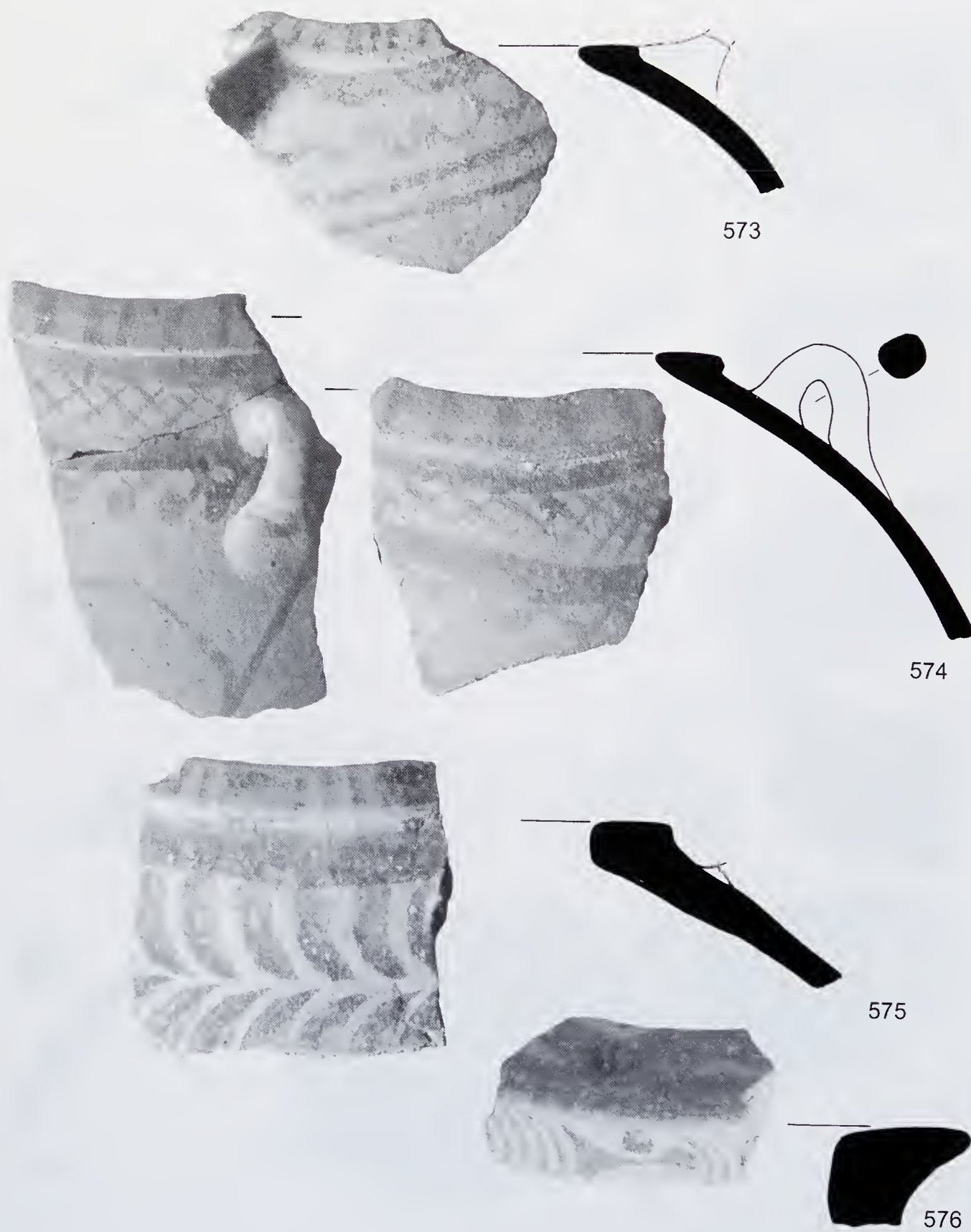


FIG. 32. Later Local pottery.

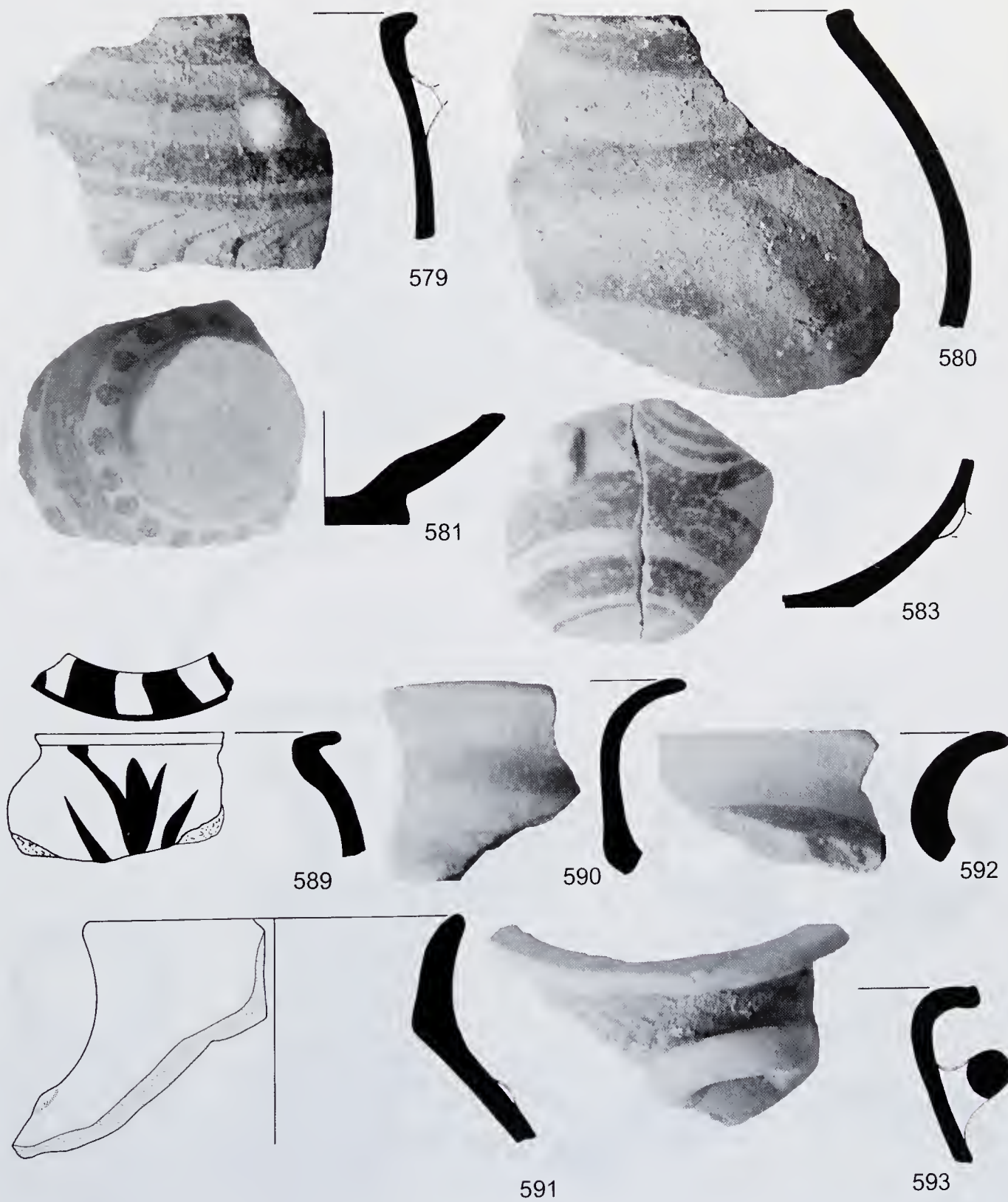


FIG. 33. Later Local pottery.



FIG. 34. Later Local pottery.

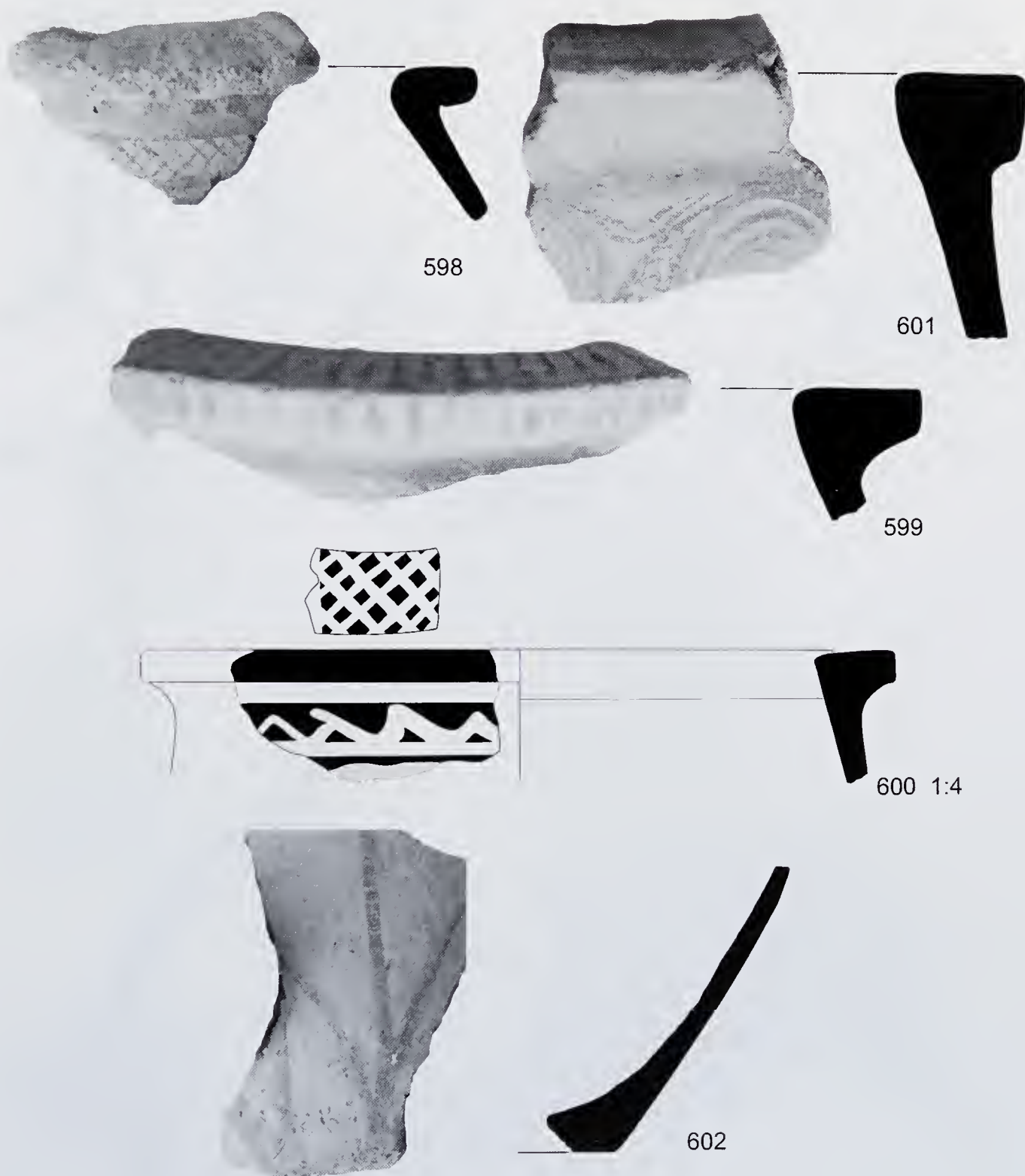


FIG. 35. Later Local pottery.



FIG. 36. Later Local pottery.

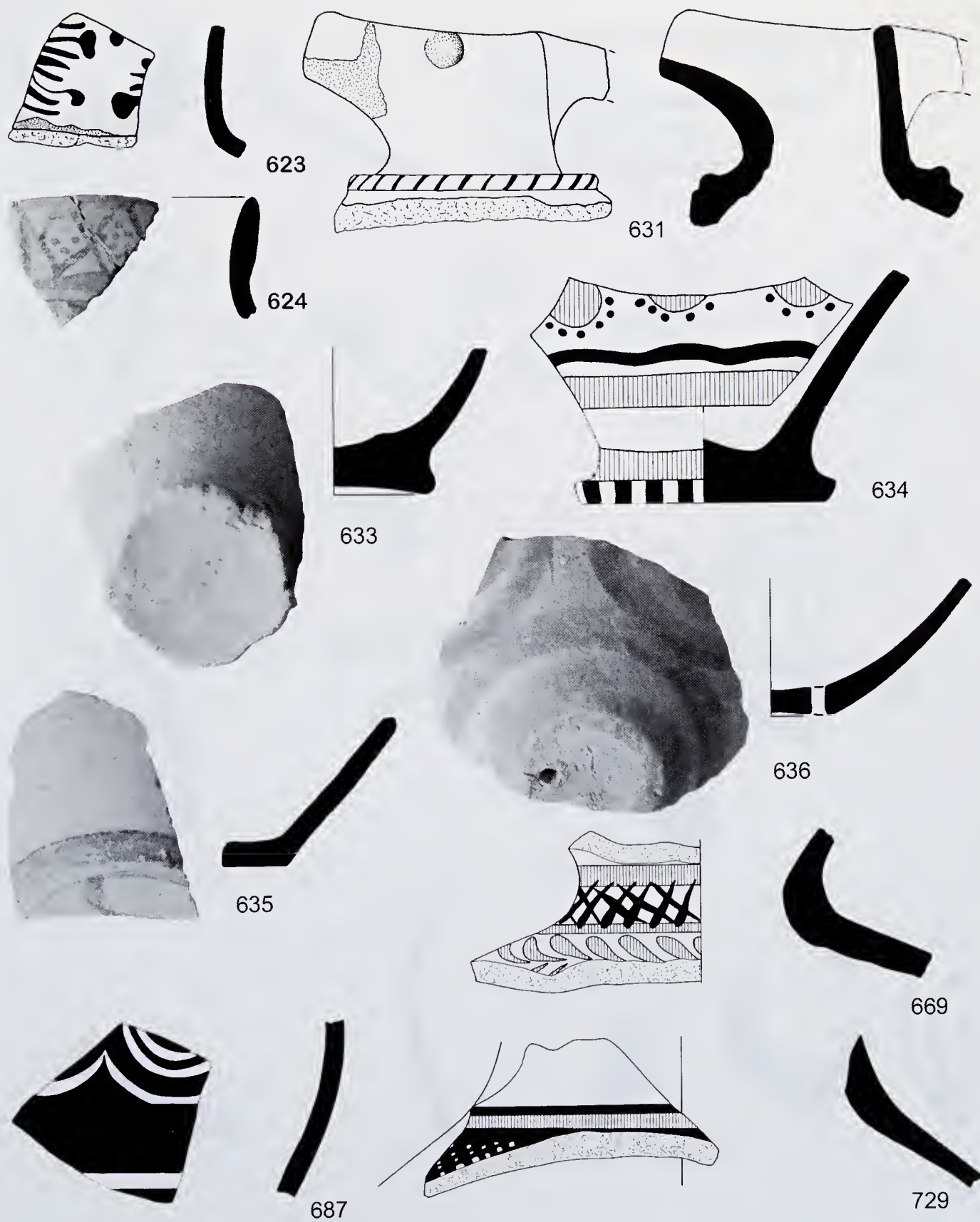


FIG. 37. Later Local pottery and (729 only) Black and Red.

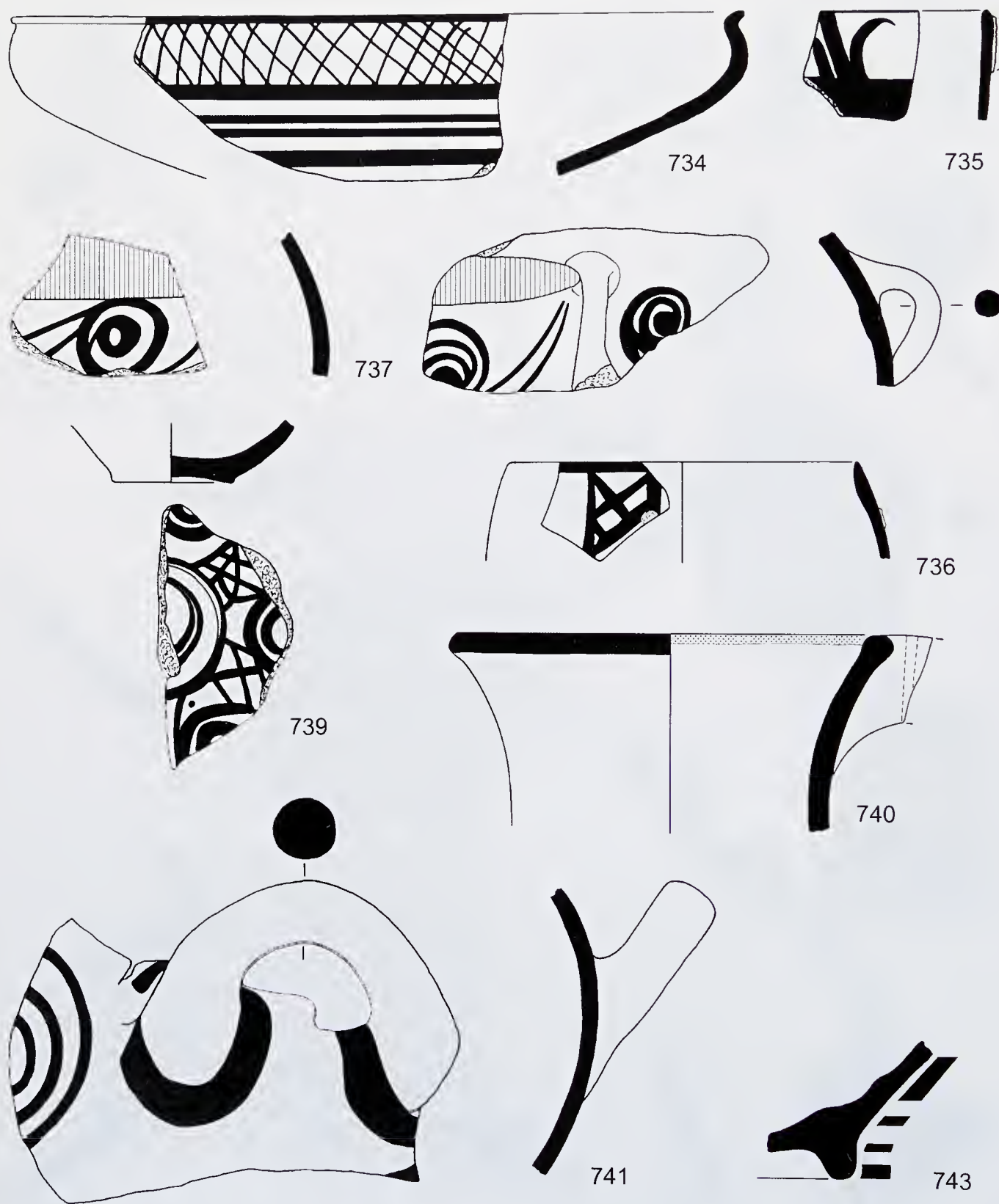


FIG. 38. Hard Painted pottery.

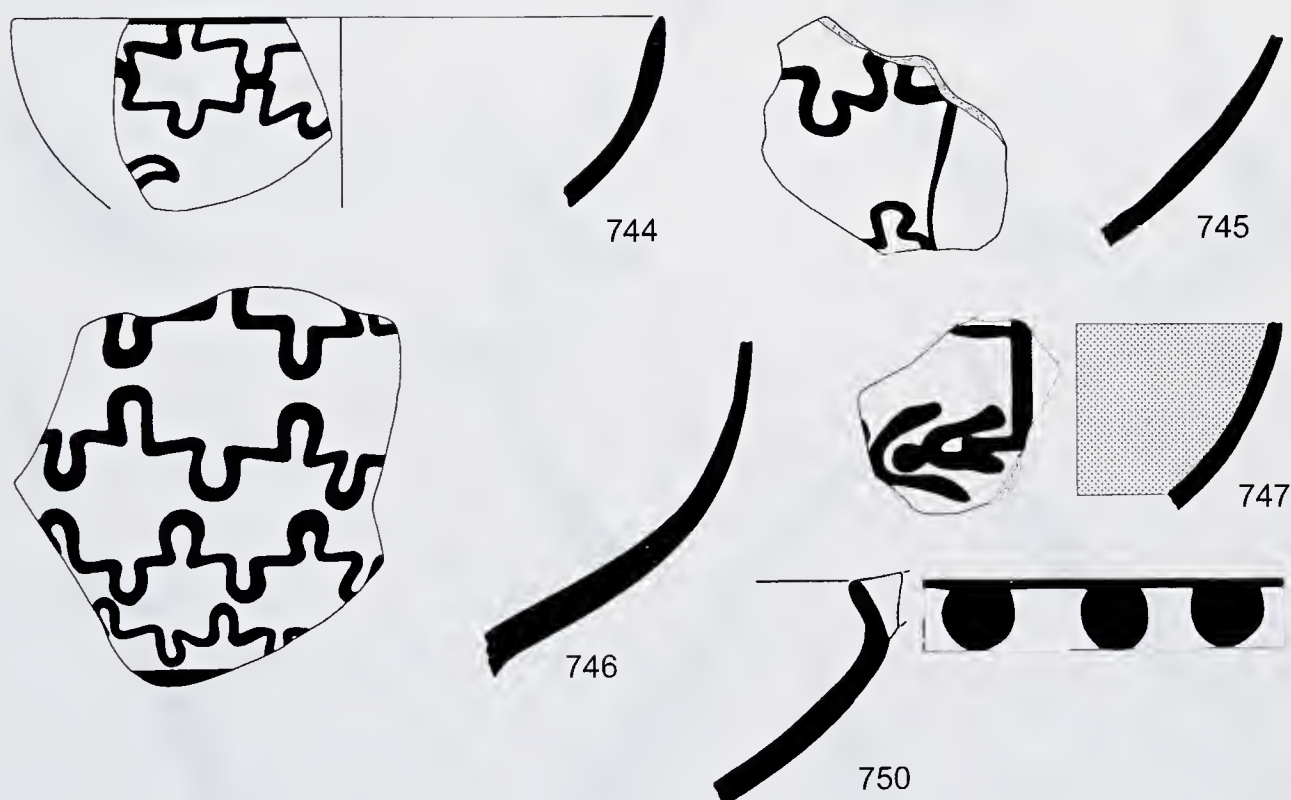


FIG. 39. Coarse White Slip pottery.

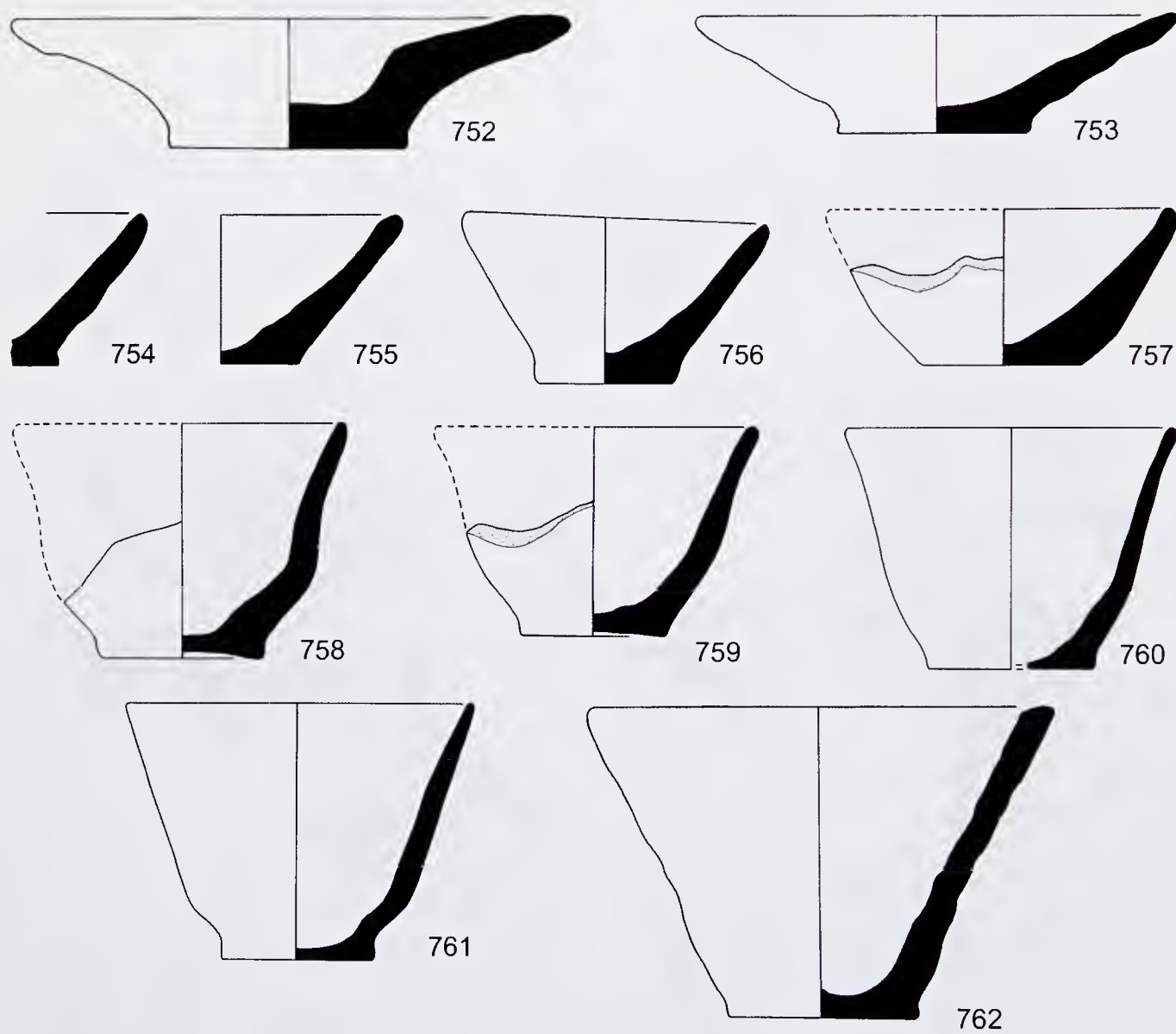


FIG. 40. Plain pottery.

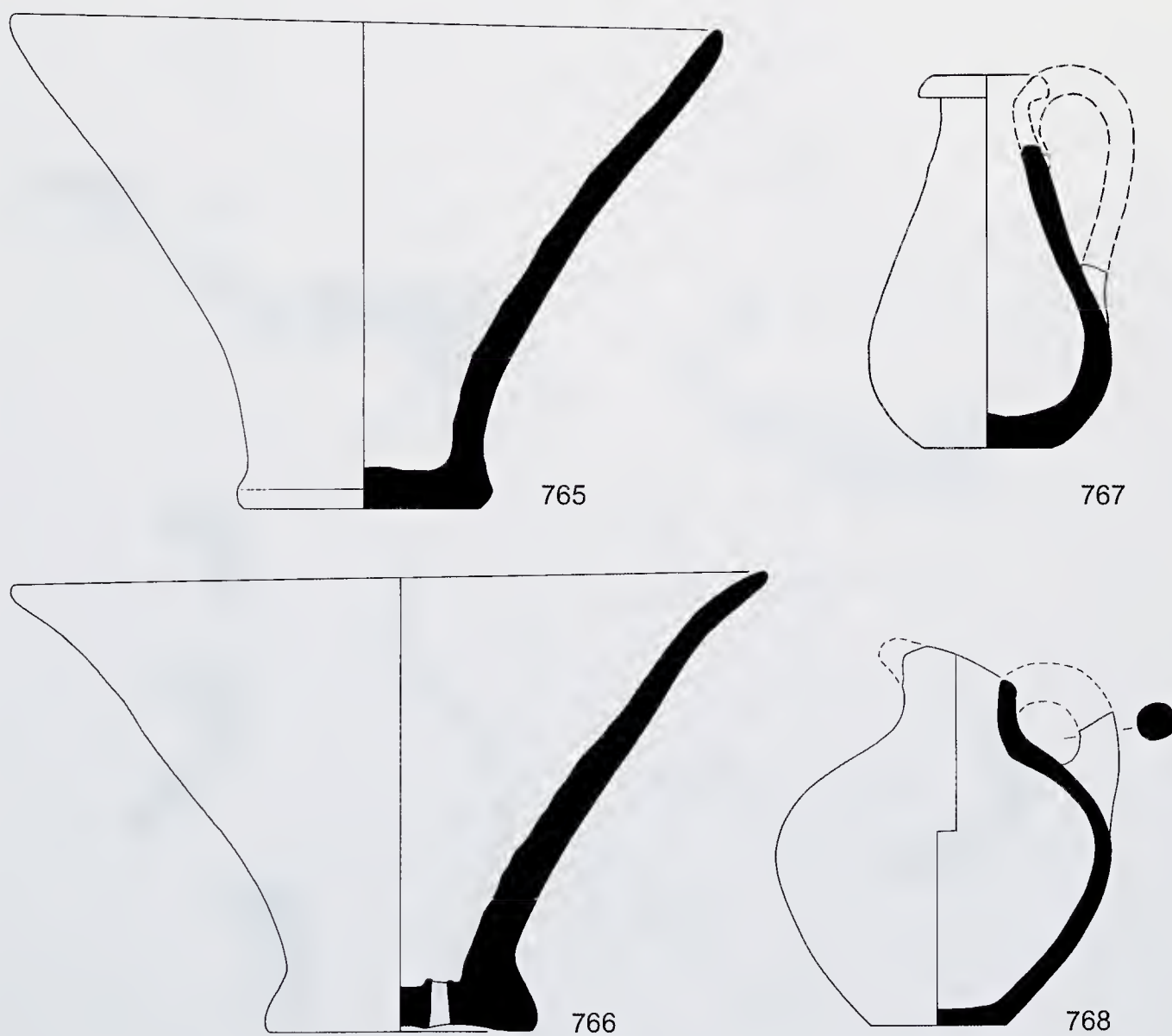


FIG. 41. Plain pottery.

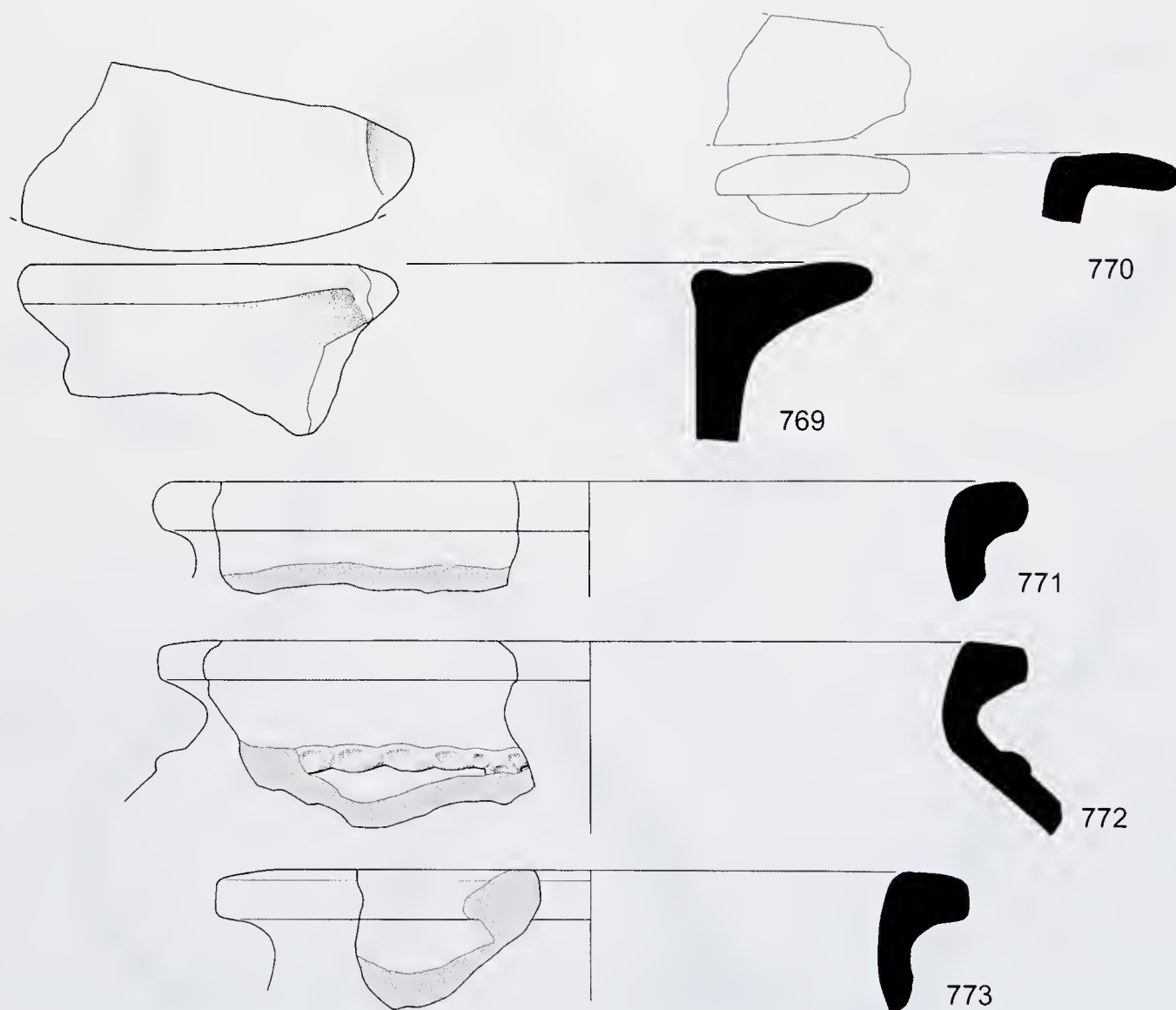


FIG. 42. Coarse pottery.

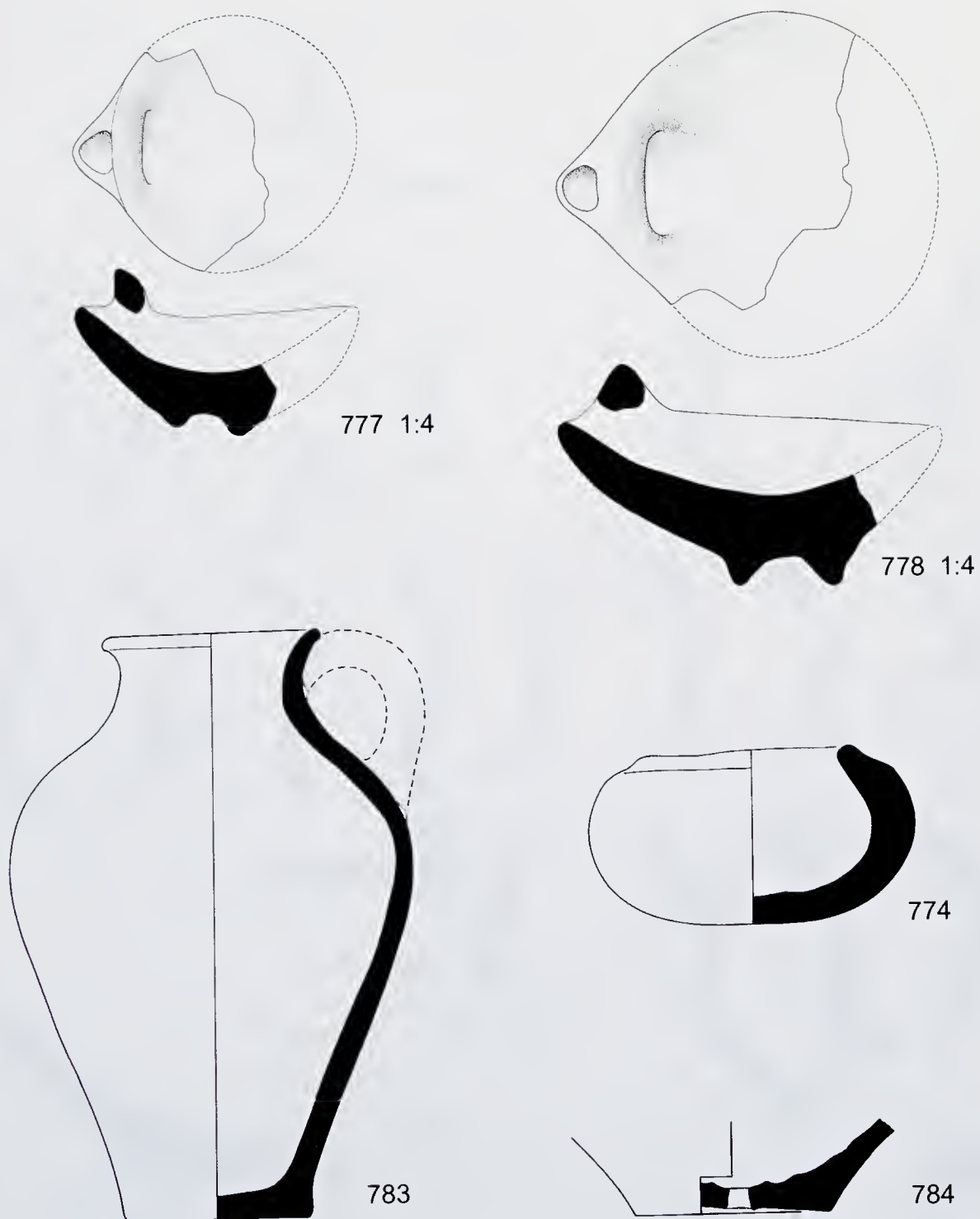


FIG. 43. Coarse pottery.

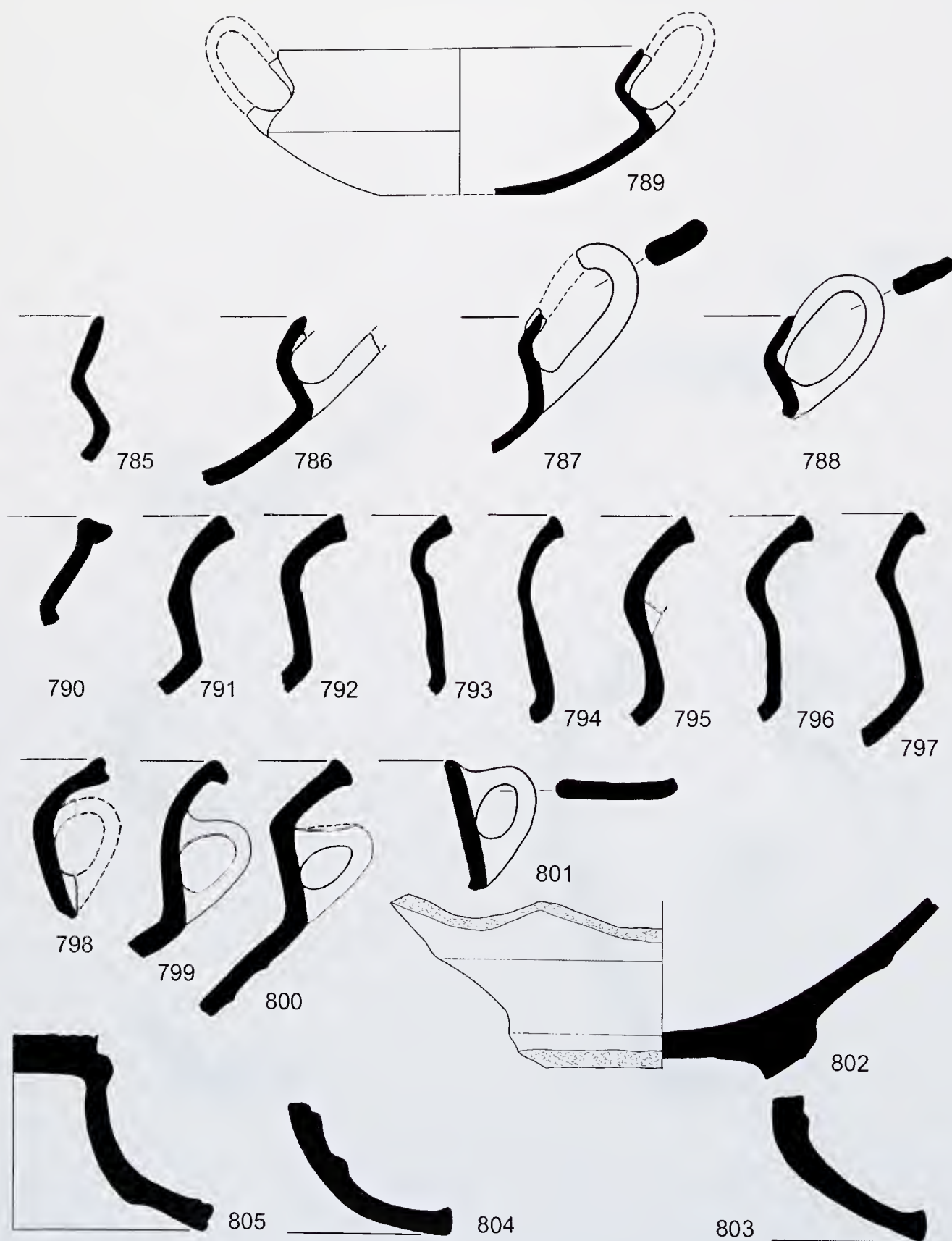


FIG. 44. Grey Minyan pottery.

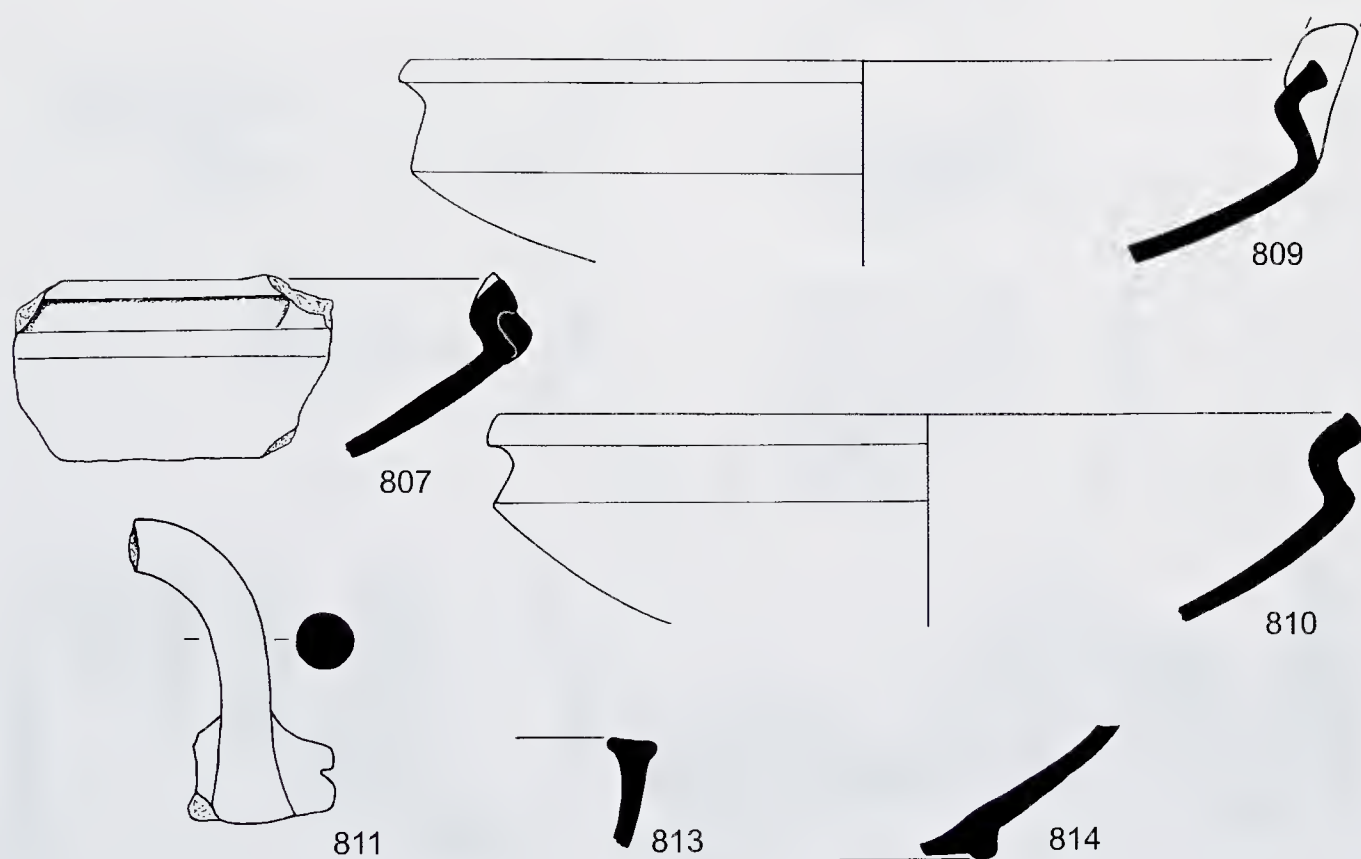


FIG. 45. Grey Minyan pottery.

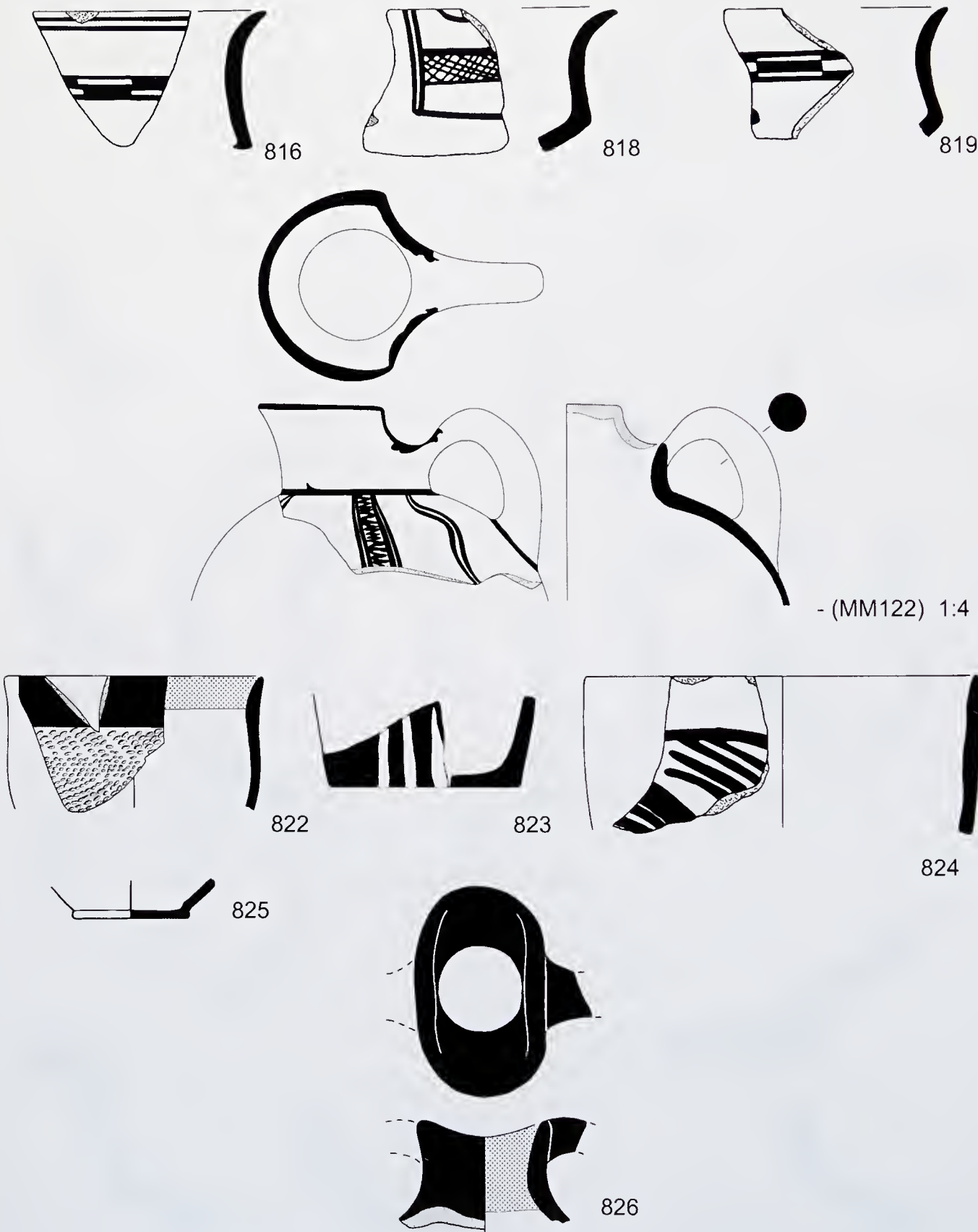


FIG. 46. Imported pottery (Helladic and Minoan, excluding Grey Minyan).



FIG. 47. Imported pottery (Late Minoan I).



FIG. 48. Imported pottery (Late Minoan I).

KNOSSOS, THE LITTLE PALACE NORTH PROJECT, PART I: THE EARLY GREEK PERIODS¹

INTRODUCTION (BY E. HATZAKI)

The Little Palace and Unexplored Mansion site (Hood and Smyth 1981, 47 nos. 185–6) is one of the most thoroughly investigated areas both of the core-elite sector of the Bronze Age town of Knossos and of the later Greek and Roman city (FIG. 1). The recent publication of Evans's excavations at the Little Palace (Hatzaki 2005) complements that of the Unexplored Mansion (Popham 1984; Sackett 1992) and now marks this area as the most fully published sector of ancient Knossos.

However, the quantity and quality of available material varies dramatically because of the different recovery strategies applied by Arthur Evans in the 1900s, and by Mervyn Popham and Hugh Sackett in the 1960s and 1970s. With the exception of the Stratigraphical Museum extension site (Warren 1981; 1983), knowledge of the Bronze Age town of Knossos is visually and spatially fragmented as a result of Evans's repeated choice to excavate only well-preserved single buildings at different parts of the town's core-elite sector rather than any cluster of neighbouring houses (Hatzaki forthcoming). As for the Little Palace area, virtually nothing of its post-Bronze Age occupation levels is known.

Since the façade of the Unexplored Mansion and the adjunct North-East Platform were fully exposed by Evans in 1908 (Hatzaki 2005, pl. 8 *a*) and the southern earth section of the Little Palace was later concealed behind a dry-stone wall (cf. Hatzaki 2005, pls. 2 *a* and 12 *b*, pls. 13 *b* and 4 *b*), the northern earth section (Hatzaki 2005, pl. 2 *b*) remained the only archaeological section still visible, and therefore had the potential of yielding detailed information about the site. Site conservation plans by the 23rd EPCA included the construction of a dry-stone wall up against the northern earth section in order to protect it from erosion. Unless recorded, this section would then have become invisible and the site would have stood more or less in a stratigraphical void. This area, therefore, presented an ideal opportunity for testing the immediate vicinity of the largest Neopalatial building of the Knossos town for a probable occupational history of comparable complexity to the Bronze and post-Bronze Age levels at the Unexplored Mansion and also for putting into perspective the highly selected material from Evans's excavations.

¹ The excavation was conducted under the auspices of the British School at Athens, and permits were issued by the Greek Ministry of Culture. The successive directors of the 23rd EPCA, A. Karetsou and E. Grammatikaki, and the Ephorate representative on site, V. Marselou, are warmly thanked for their support. The Institute for Aegean Prehistory (INSTAP) and the BSA are thanked for financially supporting this project; and INSTAPEC for providing the services of their publication team (C. Papanikolopoulos, photography). Surveying and digitizing the site plans were done by J. Naranjo-Santana (Oxford Archaeological Unit). E. Hatzaki, then Knossos Curator, directed the excavation; D. Evelyn, S. MacVeagh Thorne and M. Prent were trench supervisors, H. Parton

apotheke co-ordinator, and A. Lambakis foreman. Undergraduate and post-graduate students from Bristol, Cambridge, Edinburgh, Sheffield, and UCL participated in the 2001 and 2002 fieldwork seasons. Pottery and terracotta small finds published here were drawn by Nicky Coldstream; other small finds and section drawings by A. Reijling. Thanks are due to Stuart MacVeagh Thorne for improving the English in the sections by E. Hatzaki, M. Prent, and A. Livarda.

Special abbreviations: EPCA = Ephorate of Prehistoric and Classical Antiquities; LPN = Little Palace North.

Chronological abbreviations (e.g. O = Orientalizing, PG = Protogeometric) in the text and catalogues are those employed in Brock 1957 and in Coldstream *et al.* 2001.

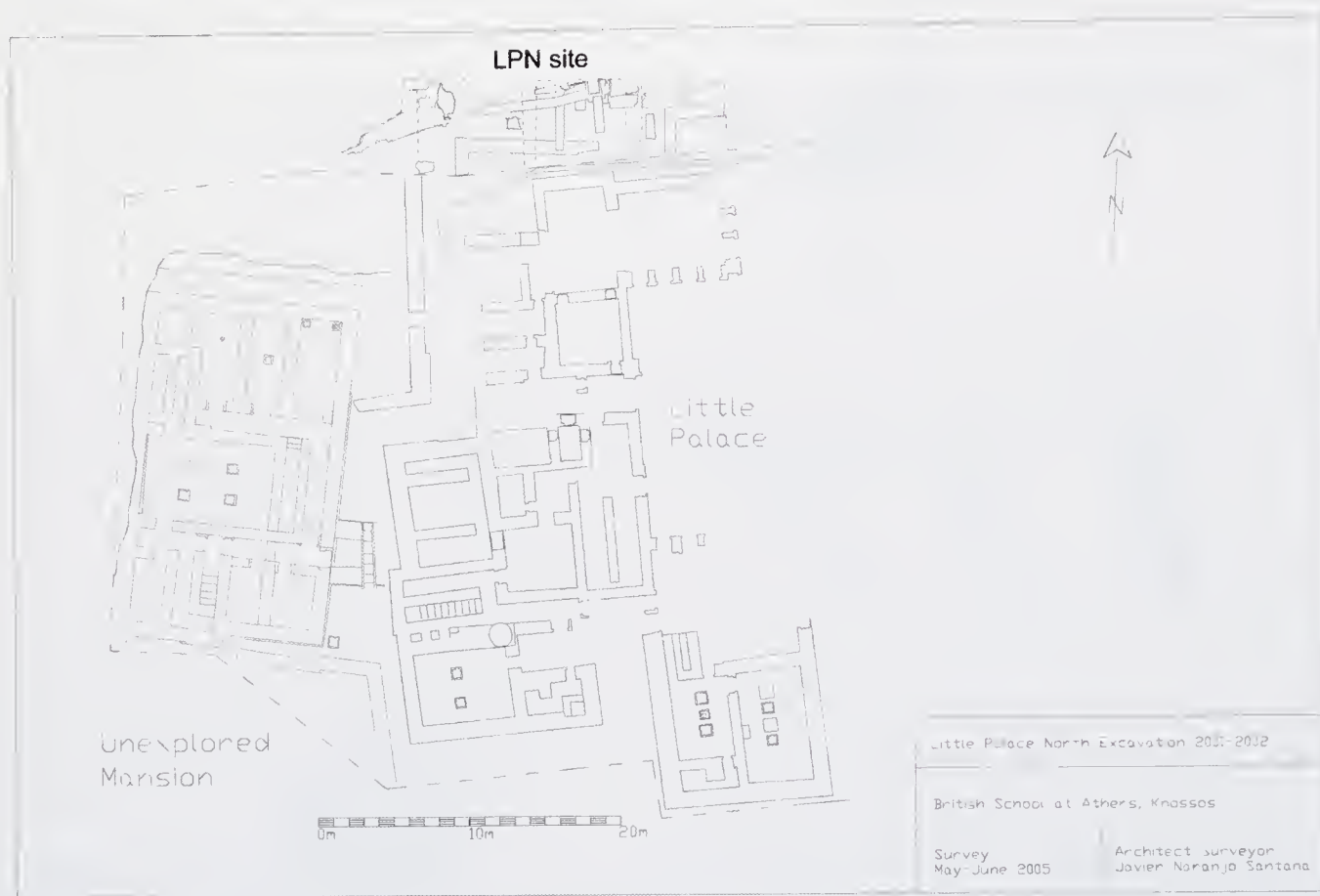


FIG. 1. Location of the Unexplored Mansion, the Little Palace, and the Little Palace North site.

Initially the project's aim was to record in detail the highly irregular line of the north section. Following the recommendation of Mrs Alexandra Karetsou (then Ephor of the 23rd EPCA), the area investigated was expanded so that the former line of the old fence would become the site's new north section. The area investigated during the 2001 and 2002 excavation seasons is shown on FIGS. 1-2 and PLATE 24.²

Archaeologists rarely have the opportunity to see in section parts of what they are about to excavate. This opportunity was available at the north section of the Little Palace site, which, in effect, became the southern limit of the area excavated. Trench dimensions were determined by the position of the post-Bronze Age walls visible in the section. Context recording was employed and combined with the 'level and zembil' recording system and with systematic sampling for bioarchaeological material.³ The site's stratigraphy proved to be of a complexity comparable to that of the nearby Unexplored Mansion and Stratigraphical

² Brief reports have been published in *AR* 2001-2, 107-8; *AR* 2002-3, 81.

³ [Editor's note] The 'level and zembil' recording system appears to have been introduced by the late Mervyn Popham, and subsequently adopted by many of his colleagues and pupils. This system uses the 'zembil' (a Turkish loan-word, originally denoting a straw basket, and nowadays a container made of vulcanized rubber) as a

further unit or subdivision of an archaeological 'level', the latter corresponding to an archaeological context or layer. The 'zembil' unit is a subdivision of an archaeological context/level brought about by the exigencies of excavations, such as a slight change of soil or some other emerging feature, which does not seem to necessitate a change of the archaeological context/level itself.

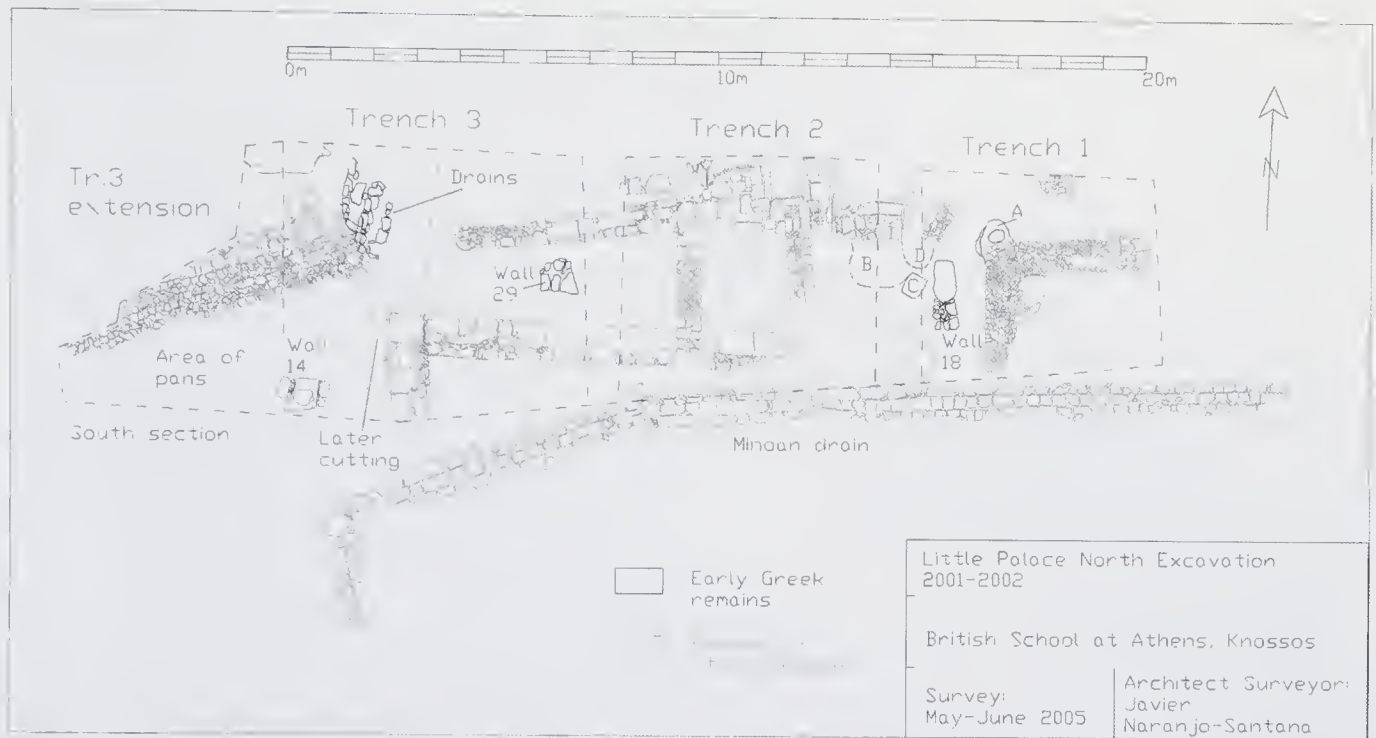


FIG. 2. LPN site plan.

Museum extension site. Multiple architectural phases were revealed dating from the sixteenth century BC to the fourth century AD. This article, the first in a series, fully publishes the early Greek occupation levels, which like most contemporary contexts from Knossos are associated with sparsely preserved architectural remains, the result of extensive later occupation activities at the site.

EXCAVATION AND STRATIGRAPHY (BY M. PRENT)

As noted in the Introduction, excavation was limited to a relatively narrow, rectangular area measuring c.23 m from east to west and c.4.5–6 m from north to south (FIG. 2; PLATE 24). Deposits from the early Greek periods span the entire range from the Subminoan to Orientalizing periods (eleventh to seventh centuries BC), but their distribution over the area of excavation was uneven. As is common in Knossos, the early Greek remains at the Little Palace North site were much disturbed by the activities of subsequent inhabitants of the area; these activities included the robbing of Minoan ashlar walls, the levelling of parts of the hillside and the digging of foundation trenches for new walls. The latter kind of disturbance is particularly characteristic for the Roman periods, when wall foundations reached depths of several metres, but the quarrying of Minoan ashlar blocks may well have been a virtually continuous process, as it was at the neighbouring Unexplored Mansion site (Sackett 1992, 2–58 *passim* and pl. 5). Levelling and (re)terracing may also have been of all periods. The presence of Orientalizing strata directly over LM III A–B levels in the far east of the excavation suggests some kind of landscaping just before or during the seventh century BC. In general, however, the patchiness of the evidence makes it difficult to reconstruct the physical appearance of the hill-slope in the early Greek periods.

The distribution of the early Greek deposits over the area of excavation is as follows: in the western extension of Trench 3 (FIG. 2; PLATE 25), on the upper part of the slope and deposited over the remains of a LM III C house, a series of superimposed clay-lined depressions or pan-like structures was found. The lowest of these contained debris of the SM/EPG period (Deposit B1, to c.950 BC), the second of the PGB/EG period (Deposit B2, to c.800 BC) and of the MG period (Deposit B4, to c.750 BC). Elsewhere, such early deposits were less well defined or altogether missing. In the central portion of the excavation two layers of hill-wash yielded a relatively homogeneous assemblage with the latest sherds belonging to the MG period (Trench 3, east part; Deposit B3, to c.775 BC).⁴

Stratigraphically, little more can be said about these hill-wash layers than that they had been partially deposited over Classical strata, suggesting that they derived from the collapse of a terrace or other wall in the unexcavated area to the north. Strata of the Orientalizing period were encountered in the form of hill-wash over the earlier clay-lined pans in the west (Trench 3; Deposit B5) and, most interestingly, in the form of a number of outside surfaces with hearth-pits and traces of metal-working in the far east (Trenches 1 and 2; Deposit B6).

With the exception of a possible working platform or bench and small sections of two drains or water channels, no built structures belonging to the early Greek periods were found; this is different from the situation at the Unexplored Mansion site, where at least a few fragments of probable house walls and associated floors were present.⁵ The evidence at the LPN instead points to metal-working and other activities that took place outdoors, thereby adding to our knowledge of known activities and of the spatial organization of the early Greek settlement at Knossos.

TRENCH 3 (WESTERN EXTENSION)—THE SM/EPG TO MG CLAY-LINED PANS

Excavation of the early Greek levels in the west sector (i.e. the west portion of Trench 3 and its extension to the west) was confined to a triangular area with maximum dimensions of c.2.20 m (N-S) by c.5 m (E-W). To the north and northwest a cobbled road, on preliminary evidence of Hellenistic date, created a boundary (FIG. 2; PLATE 24). To the east the early Greek levels were interrupted by a number of later trenches, which run on a north-south line and probably represent repeated efforts to reach the ashlar blocks of LM III wall 7a. The deepest and most disruptive of these trenches probably dates to the third century AD. Preserved slivers of earlier pit fills on the western side of this cutting, however, suggest similar activities in the late first century BC and perhaps in the Classical period. The latest trench may have been dug by Evans, in an attempt to trace the continuation of the western façade of the Little Palace. To the south, Evans's excavation of the Little Palace had removed much of the Postminoan levels, but enough was left to show disturbance of the early Greek levels in late Classical and subsequent times. These disturbances can be related to the construction of wall 14 (FIG. 2; PLATE 25). While only a few blocks of this wall had been preserved, a distinctive gravelly fill was found to extend along its northern face, indicating an original course along an east-west line. The latest sherds from this fill date to the first half of the fourth century BC,⁶ at which time wall 14 must have formed a sturdy terrace or retaining wall running parallel to the road.

⁴ Associated zembils: nos. 1278, 1339, 1507, 1515, 1516, 1518, 1519, 1520, 1521, 1522, 1524, 1572, 2232, 2233, 2234.

⁵ Sackett 1992, 2–5 mentions a fragment of an EPG mud brick wall and associated plaster floor (pl. 9, no. 25),

G wall 'bl/bk' (pl. 2), MG wall 'fy' (pl. 2, pl. 5 no. 18, pl. 7 no. 9), MG walls 'gc' and associated occupation surface (pl. 2, pl. 5 no. 10, pl. 6 no. 17); see also pl. 5 no. 29, a foundation trench for wall 'fl' possibly of G date.

⁶ As preliminarily dated by P. J. Callaghan.

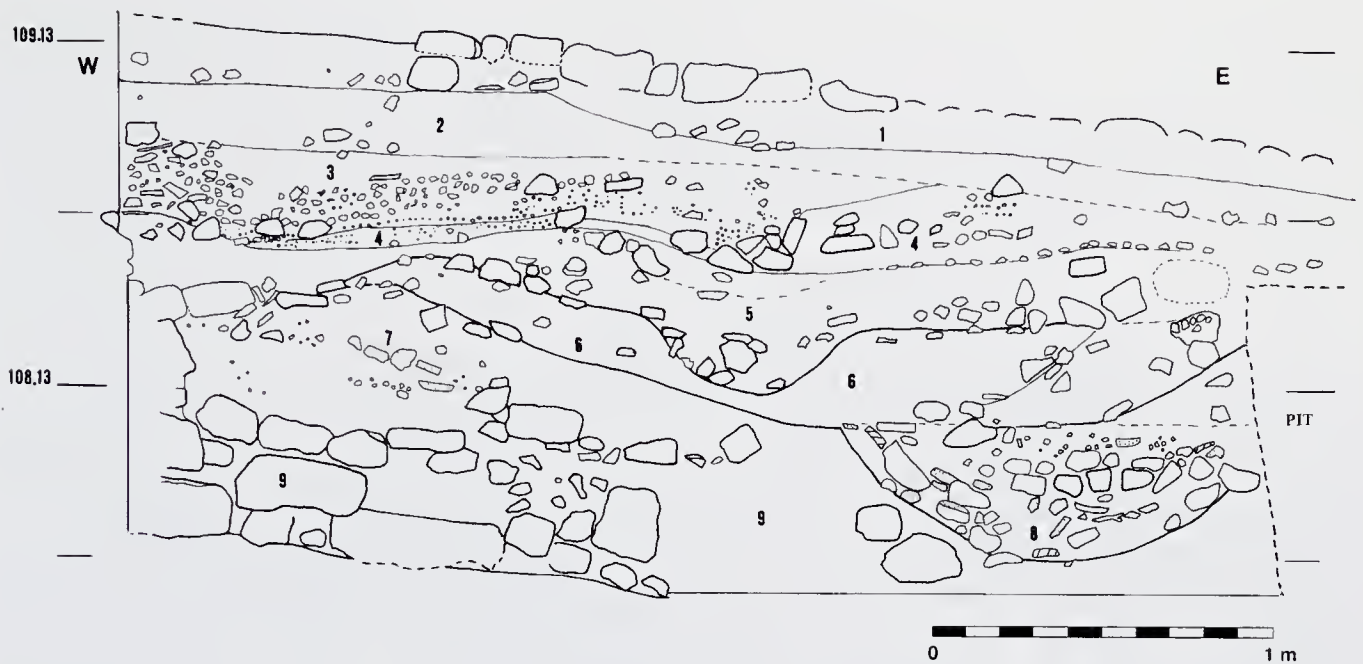


FIG. 3. E-W section (1 : 20) below cobbled road: 1. Hellenistic (?) cobbled road and clay packing; 2. wash layers; 3. pebble layers; 4. cleaner wash layers; 5. soft fill in Pan II, with small stones and ash; 6. firmer, light brown band forming bottom of Pan II, with thin ash layer at bottom; 7. loose soil with flecks of carbon and concentration of pan-lining fragments; 8. Pan I, filled with small stones and pan lining fragments; 9. LM III layers and construction.

As a result of all these later activities the area with undisturbed early Greek levels here was relatively small. It was nevertheless clear that after the abandonment of the LM III C structures this part of the site had been left open. It probably bordered a road or pathway to the north, which must have had roughly the same orientation as the later cobbled one. The existence of such an earlier road is indicated by the gravel and pebble strata which became visible in the E-W and N-S sections below the later paving (FIG. 3, level 3 and FIG. 4, levels 4, 6, 7, and 9 respectively). This earlier road may have been the continuation of the one of which a narrow strip had been preserved along the north-east edge of the Unexplored Mansion.⁷ Alternatively, it may have formed a separate branch leading down the hill in an eastern or northeastern direction. Not enough of the pebble and gravel layers could be excavated without dismantling the cobbled road and therefore little diagnostic material could be obtained to date these levels. However, their stratigraphical relationship with the early Greek features excavated in the area south of the cobbled road suggests their gradual accumulation from the PGB/EG period. This broadly corresponds to the situation at the northeast edge of the Unexplored Mansion, where similar gravel strata have been dated to the period of the tenth and ninth centuries BC, with a *terminus post quem* of EPG provided by the patch of hard white plaster floor below them.

The most interesting—and at the same time puzzling—features excavated in the western extension of Trench 3 consist of a series of large, clay-lined depressions or pans, which will be

⁷ Sackett 1992, 3, 54–5, pl. 9 nos. 23–4 (LG/EO road surfaces and 10th/9th-c.-BC gravel strata) and no. 25 (EPG white plaster floor).

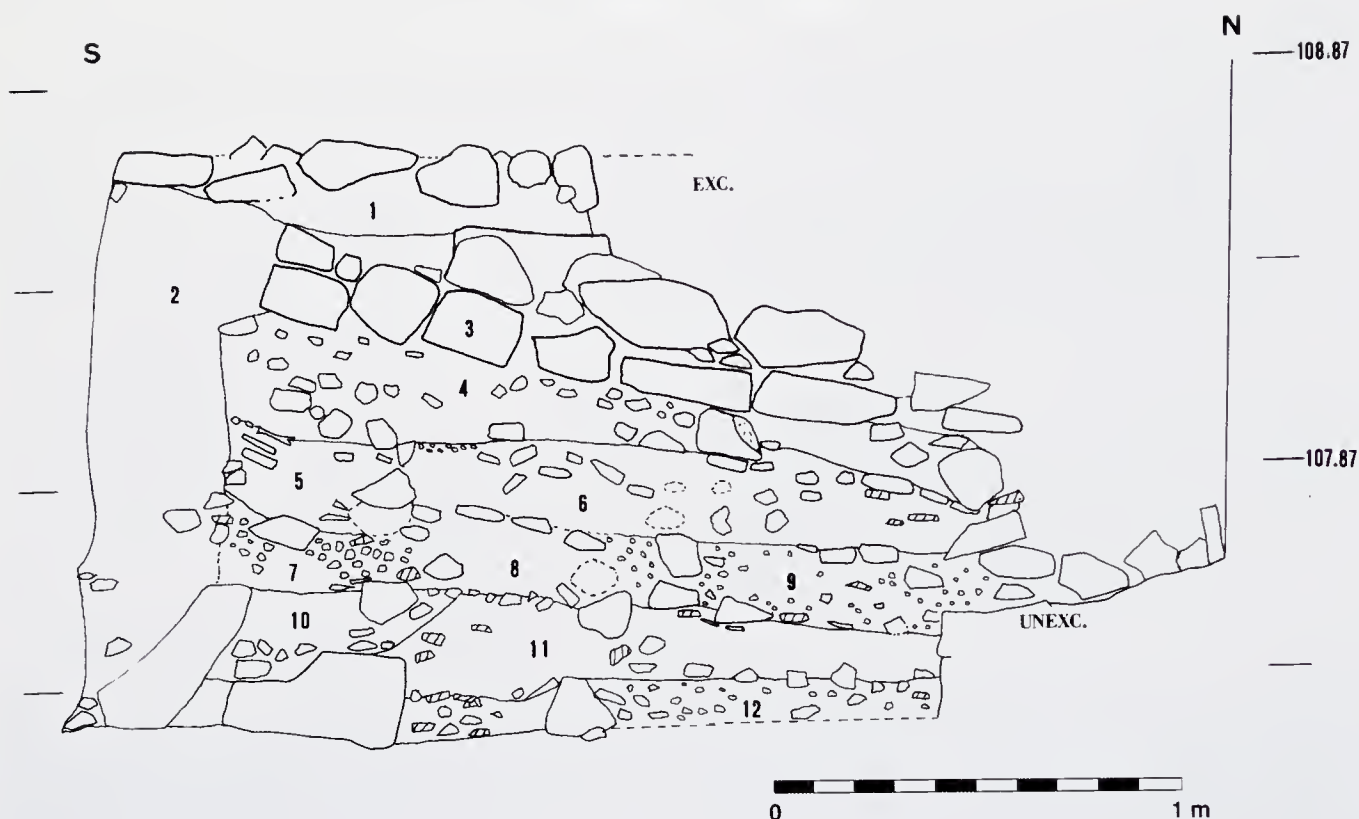


FIG. 4. N-S section (1 : 20) below east end of cobbled road: 1. Hellenistic (?) cobbled road; 2. disturbed area; 3. drain; 4. street layer (?) with gravel and pebbles, small worn sherds and carbon flecks; 5. small pit (?); 6. street layer (?) with small stones; 7. patch with pebbles and gravel; 8. somewhat cleaner patch; 9. street layer (?) with gravel and coarse sand; 10. possible pit; 11. clay-like soil with flecks of carbon and kouskouras fragments; 12. level with gravel and sand.

discussed in more detail below. They were filled with debris dating from the SM/EPG period (to c.950 BC), PGB/EG (to c.800 BC) and MG periods (to c.750 BC) respectively. The pans went out of use after c.750 BC when the area was gradually covered by layers of hill-wash.

Pan I (with Deposit B1)⁸

The shape of the lowest depression, Pan I, is the most difficult to reconstruct, as the area must have been partly cleared out when the next pan was laid out at the same spot. Observations made during excavation and the features preserved in the E-W section below the cobbled road (FIG. 3, nos. 7–8) suggest a roughly circular basin (measuring 2.5 m from east to west as preserved), with gently sloping sides and a steeper bowl-like depression, c.0.40 m deep, in the centre. The pan contained dark grey, burnt soil with pieces of charcoal, which was mixed with more honey-coloured and grey-brown soils. The associated SM/EPG sherd material, discussed below by J. N. Coldstream as Deposit B1, indicates that the feature went out of use and was filled up with domestic debris around 950 BC.

Associated with Pan I were also some 54 unevenly baked fragments (some of them joining)

⁸ Associated zembils: nos. 2515, 2572, 2573, 2574, 2576, 2577, 2588, 2589, 2590, 2595, 2597, 2598, 2600.

of what in all likelihood had been a clay lining. A concentration of such fragments is visible in the west portion of the section below the cobbled road (FIG. 3, no. 7). On the analogy with the better preserved pan immediately over of it (Pan II), it may be suggested that this first depression too had been provided with a clay coating, which had been exposed to fire while *in situ*. When the area was prepared for the construction of the next pan, much of this lining must have been dislodged and moved to the side.

*Pan II (with Deposits B2 and B4)*⁹

The upper pan, Pan II, directly overlies Pan I, but appears to have been slightly smaller (FIG. 3, levels 5, 6). As excavated, it measured *c.*2.20/40 m E–W × 1.30 m N–S. The clay lining, as noted during excavation, was of a light clear yellow colour where unfired and orange where fired. Pan II was surrounded by a bank of soil with loose, medium-sized stones in it.

Pan II appears to have been reconstructed at least once, in the process of which the lower fill was disturbed (see Deposit B2, with a terminus of *c.*800 BC). At the bottom of Pan II was a thin layer, *c.*2–3 cm thick, of grey to grey-brown, ashy soil. Over this was a layer of firmer, light brown clay-like soil, which, like Pan I, has a bowl-like depression in the middle. The clayish layer incorporates bits of yellow clay, probably part of the original lining of Pan II (FIG. 3, level 6), suggesting at least one re-laying. An upper layer consisted of a deposit of soft, light grey-brown to brown soil, with patches of purer ash and cobble-sized stones (FIG. 3, level 5). The latest ceramic material from this upper layer (Deposit B4) can be dated to the MG period (to *c.*750 BC).

As with Pan I, a number of fragments of the clay lining of Pan II were collected during excavation. In addition to the 54 fragments from Pan I, another 90 could be associated with the lower levels of Pan II and 13 with its upper fill. Although it remains difficult to determine the function of these pans, the following observations, provided by D. Evelyn, will shed more light on their construction and shape.

The pan-lining fragments (by D. Evelyn)

As a rule the pan lining fragments are of a clay much mixed with vegetable matter and only a little with grit and sundry inclusions, tending to a light orange hue. In all this they broadly resemble pithos-type fabrics. However, they are not fired as the vases were and, accordingly, are more friable. Most fragments are *c.*8 × 5 cm in size and 1.5–2 cm thick; smaller scraps abound. Very often one surface (the interior) will be noticeably smoother, in contrast to the other that bears the marks of having been pressed on to earth or some similar matrix (PLATE 26 *a–b*); one carries an imprint of some basketry (PLATE 26 *c*).

The actual pieces which have some sort of external diameter preserved number half a dozen. These are only a little, and rather irregularly, curved and indeed look more or less straight to the eye (PLATE 3 *e*). The diameter of the whole could thus be very great, which fits with the image presented by the excavation and the E–W section below the cobbled road (FIG. 3).

Quite a few of the fragments have a thickness that increases towards the rim, also showing at times a curving profile on the interior. Where the rim/side profile has survived, it seldom rises above 7–8 cm high: in relation with the base it forms an L (FIG. 5). This suggests that the side was upstanding and free from the ground altogether, providing a slight kerb to the whole

⁹ Zembils associated with Deposit B2: nos. 2497, 2498, 2501, 2502, 2503, 2511, 2580, 2581, 2582, 2583, 2584,

2585, 2586. Zembils associated with Deposit B4: nos. 2480, 2482, 2483, 2490, 2495, 2496.

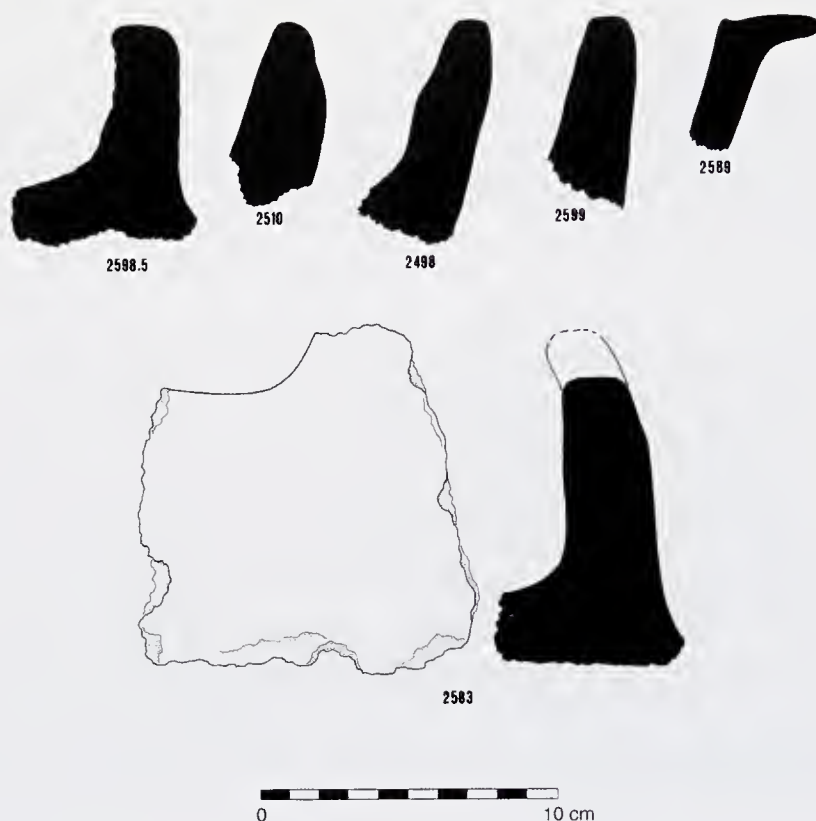


FIG. 5. Pan-lining fragments (1 : 2).

object. In these cases, both the interior and the exterior have been wiped smooth. The rims are robust and rounded: in one case it is itself indented, rather in the matter of a souvlaki rest (FIG. 5; PLATE 26 *f-g*). In other cases it is given a wavy outline, in whole or part (PLATE 26 *e*).

The picture that thus emerges is of a very large and slightly concave, open basin with an additional bowl-like depression in the middle, all built *in situ* on the ground. Its base is fairly consistently 1.5–2 cm thick. At the edge, a low side (7–8 cm high) turns up at right angles to this. The interior and the exterior of the rim are habitually rubbed over to give a slightly more uniform surface and are sealed better as a result. Otherwise the fabric is full of vesicles from burnt-out vegetable inclusions (PLATE 26 *k*), and so is porous.

In the manufacture of these linings, the clay must have been handled in slabs, coils, or other prepared smaller elements and pressed, squeezed, and smeared together. One group of fragments may show signs of this. One piece, perhaps a discarded lump, is much more irregular in shape than the rest and carries clear impressions of fingers or knuckles as the clay was kneaded to shape or into position. The fractured sides show voids where the clay has been stretched and turned up through a right-angle to make the edge.

Some signs exist for the use of different clays. The base at times was made of a more yellow one, on to which the side was added in a clay of a ruddier colour, unless this results from differential exposure to heat. Excess clay at the base portion was then smeared up the side to bond the two together. The visible surfaces were then rubbed over, as described above. At times finger marks are seen, at others handfuls of some other material, perhaps vegetation, have been dragged over the surface, both compacting it and leaving slight scratches (PLATE 26 *g-i*). It is not clear whether at times a final slip was added as part of preparing the interior

surfaces, or what is seen is the result of wet-wiping, a sort of self-slipping process seen in the production of finer ceramics. The occasional presence of multiple layers of clay adhering imperfectly to each other can be interpreted as evidence for repairs or relinings (PLATE 26 *d*). These layers are often of different clays too.

The whole was presumably left to dry out and bake in the sun. Evidence for exposure to heat comes in the form of the partial baking and sometimes blackening of the preserved fragments. This, however, more probably occurs from the use of the pans rather than having been part of the manufacturing process. Whichever the case, the fragments are never as hard in their nature as deliberately fired pottery.

The use of the pans remains enigmatic. There was ash and burnt material in both of them, including, in the case of Pan II, the remains of olives and olive stones. This may well indicate the use of the residue from olive oil production as fuel.¹⁰ The round indentation in the rim fragment discussed above could have been a spit rest, which would suggest a function as a large, if shallow, roasting or cooking pit. Shallow cooking dishes of much smaller size (to 50 cm in diameter), but similarly made by pressing clay into a hollow in the ground, are known from various LM III sites in Crete.¹¹ These too may have indentations at the rim, but they do not provide any parallel for the bowl-like depressions in the middle of the large pans. Moreover, if the LPN pans were used to prepare meat, there are no indications of consumption on the spot, as the quantity of animal bone is rather modest. Indeed, the associated pottery, small finds, and animal bones are not likely to derive from the use of the pans themselves, but probably are part of secondary fills. The pottery from Deposits B1, B2, and B4 generally consists of loose sherds, with few, if any, joins with other sherds from the pans themselves or from the area around them.¹² J.N. Coldstream characterizes the nature of these deposits as consistent with domestic refuse. The same applies to the associated animal bones,¹³ the archaeobotanical material,¹⁴ and small finds. The latter consist of five or six stone pounders, two whetstones/polishers, a stone 'button', a terracotta loomweight, and several clay 'rubbers' (water-worn sherds, which for some curious reason are quite frequent in the early Greek levels at LPN).¹⁵

Roughly contemporaneous with Pan II are a series of horizontal layers of sand, gravel, and pebbles in a small section to the northwest. These presumably continue below the Hellenistic cobbled road and indicate earlier use as a road or path. The E–W section below the road suggests that the pan may have been laid out first, but it is difficult to establish an exact sequence. The most likely scenario is that these sand and pebble layers gradually accumulated while the upper pan was in use. Eventually some sand and pebbles started washing over the pan

¹⁰ See the section on the archaeobotanical remains by A. Livarda.

¹¹ e.g. at Karphi and Kastri, where they are described as 'shallow dishes'; see Seiradaki 1960, fig. 6, Sacket *et al.* 1965, 285 no. 16. Also Popham 1984, 174–5.

¹² This is different, for instance, from the situation at Thronos Kephala, where over 50 rock-cut pits of LM III C to LPG date have been found; here sherds joined up, both with other sherds from the same pit and with ones from surrounding surface levels. The manner of deposition and the character of the pottery, which consists largely of drinking vessels, suggest some kind of ritual use rather than rubbish disposal. See D'Agata 1999.

¹³ Preliminary examination of the animal bones by Valasia Isaakidou shows the presence (in descending order) of sheep, goat, cattle, and pig. This distribution of species, the fact that all parts of the skeletons are represented, the occasional signs of burning and gnawing are characteristic for domestic refuse. A more detailed study of the associated animal bones is planned for the future, in relation with other bone material from early Greek levels at Knossos.

¹⁴ See the section by A. Livarda below.

¹⁵ As discussed by D. Evelyn in the section on the Small Finds below.

and partially covered it in the northwest (FIG. 3, level 3). The central and eastern parts were covered by cleaner, yellow-brown hill-wash (Deposit B5, extending into LO) (FIG. 3, level 4).¹⁶

TRENCH 3, CENTRAL PART—THE EARLY GREEK (?) DRAINS OR WATER CHANNELS

Clearance of the fill from the deep third-century AD pit, which cut through Trench 3 along a N–S line, exposed a 0.60 to 0.80 m high, somewhat sloping, section with what appear to be earlier street levels below the Hellenistic cobbled road (FIG. 4, nos. 4, 6, 7, 9, 12).

Most of these layers are extremely sandy, with a high content of pebbles, gravel, and small stones, and with flecks of carbon and worn, small sherds. As only a sliver of the exposed section could be excavated without undermining the cobbled road, we lack the pottery to date these layers accurately.¹⁷ There was a distinct presence of Orientalizing sherds in the general area, but in most cases these were quite scrappy and accompanied by Roman and other late sherds indicating severe disturbance. The area is of special interest, however, because of the presence, at the top of these sandy layers and just below the later cobbles, of short sections of two stone-built drains or water channels.

The westernmost drain or channel wall consisted of two courses of small, square blocks, including one small upright slab at the top of the second course in the north. The bottom of the channel was formed by thick limestone slabs (FIG. 6; PLATE 27 *a*). Of the eastern wall a shorter stretch had been preserved, but enough to indicate a width of c.0.30 m for the channel. As the northern part had been destroyed in Roman times, none of the channel's contents had been preserved and no date can be proposed. No more is it possible to reconstruct its further course, although one would expect its southern, higher end to have turned westwards up the slope. A second drain or channel appears to have been created by adding a line of rougher stones along the east side; here two larger stones were preserved as well as some smaller ones, which served as a foundation (PLATE 27 *a*). The bottom of this second structure consisted simply of a bedding of small stones and gravel. Removal of the contents of this drain yielded Orientalizing sherds, relatively small and worn, and a few that may be of Classical date. As this seems a less well-built addition to the drain to the west, the latter may be assumed to be earlier.

These two structures—the one in use during the Orientalizing period, the other perhaps earlier—may well have served as drains or gutters to remove excess rain water coming down the hill along the road; another possibility is that fresh water was brought in. Examples of both drains and water channels from different periods, from Minoan to Roman, are common in this area. In their discussion of the Roman aqueduct just to the northwest, the excavators of the Unexplored Mansion pointed out that modern water channels have followed the same direction, carrying water along the contour at the foot of the Acropolis' east slope (Sackett 1992, 57–8).

TRENCHES 1 AND 2—THE SEVENTH-CENTURY BC METAL-WORKING AREA

Excavation in the east (Trenches 1 and 2 and the intermediate baulk) revealed a series of three superimposed exterior surfaces, dating to the seventh century BC. Each of these surfaces

¹⁶ Zembils associated with Deposit B5: nos. 2458, 2461, 2462, 2463, 2464, 2465, 2466, 2470, 2475, 2476, 2477, 2478, 2479, 2494.

including nos. 2410 (drain contents), 2691 and 2699 (road levels) were included by J.N. Coldstream in Deposit B7 as being of intrinsic interest.

¹⁷ Sherds from some of the associated zembils,

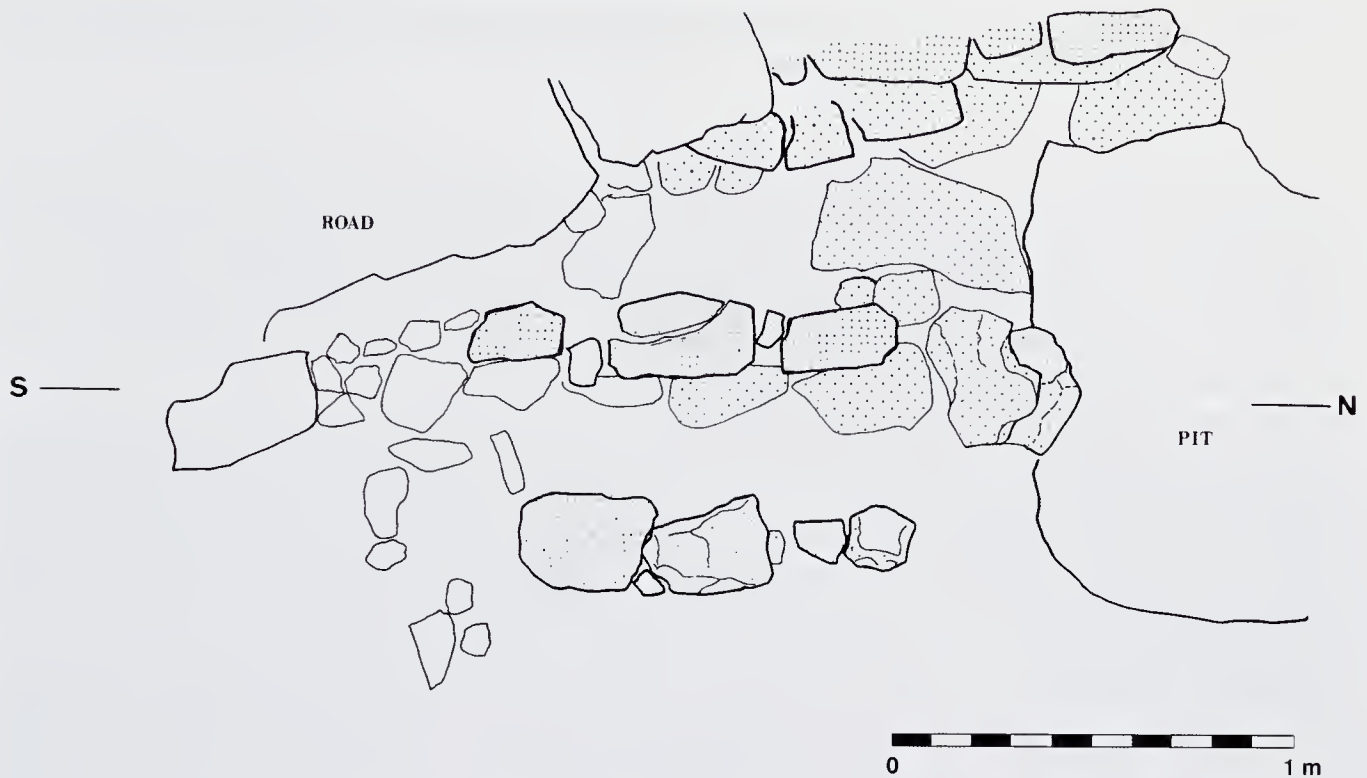


FIG. 6. The early Greek (?) drains or waterchannels (1 : 20).

is characterized by the presence of one or more pits that were used in connection with the working of metal, probably iron (FIG. 2). The latter is indicated by the numerous lumps of slag/ore, of pot sherds with iron debris attached to them, and by the traces of burning in and around these pits.¹⁸ The three exterior surfaces were overlain by two hill-wash layers without clear traces of metal-working or other industrial activities, which likewise date to the seventh century BC.

As pointed out by the late J.N. Coldstream in his discussion of the associated pottery (Deposit B6), the latest sherds from all three exterior surfaces and the overlying wash levels belong to the same stylistic ceramic phase. This suggests that metal-working took place during a relatively short period of time around the middle of the seventh century BC. He also noted that the pottery represents the kind of domestic refuse common in hill-wash layers and may not be directly related to the metal-working activities themselves. The exception is the lowest surface (Level 1), where pottery fragments are generally larger and the assemblage as a whole contains fewer earlier sherds than the upper levels.

Before discussing the evidence in more detail, it should be pointed out that the area which could be excavated was relatively small because of later activities and the boundaries imposed by the excavation. To the north, excavation was limited by the edge of Trench 1 and the presence of a (late) Hellenistic paved area. To the east, the area was cut by a later robbing trench and by the foundations for Roman walls 17 and 2,¹⁹ while to the south Evans's cutting for the Little Palace excavation had removed any existing post-Minoan material. To the west,

¹⁸ The analysis of this metallurgical debris will be undertaken in the near future, together with that of subsequent periods.

¹⁹ These walls form part of a Roman house that, at the present stage, cannot be dated more precisely because they were first exposed by Evans.

the seventh-century BC levels were interrupted by the foundations for Roman wall 5. The remaining area measured no more than c.2 m from N-S, and 2.60 m from W-E.

*Level 1, lowest surface, with hearth-pits A and B*²⁰

In the far eastern portion of the excavated area (Trench 1), the removal of a sherd dump from an earlier excavation exposed a small portion of the lowest exterior surface that had been used for metal-working activities. This surface layer extended into the area of Trench 2. It consisted of dark earth with clear signs of burning in the northeast, while elsewhere it was paler brown, containing small pieces of kouskouras. The layer was no more than 0.10 to 0.15 m thick and immediately overlay the LM III levels.

This lower surface is associated with three hearth-pits (for Pits A and B, see FIG. 2). Pit A is situated to the northeast, in an area disturbed by Roman walls 2 and 17. As preserved, Pit A is roughly ovoid in shape, measuring 1.90 m diagonally NE-SW and 1.20 m NW-SE. Its sides were relatively steep and the base, c.0.30 m below the surrounding surface, relatively flat (PLATE 27 *b*). The hearth-pit was filled with dark, almost purple-black fine soil containing schist fragments and iron working debris, while some of the sherds were encrusted with corroded iron.

Pit B is located in the northwestern portion of the excavated area and is partially obscured by the remaining stones of the (late) Hellenistic paved area. It measured c.1.20–1.30 m W-E × 0.90 m N-S; unlike Pit A, it had rather gently sloping sides. It contained greyish brown soil with carbon and small stones.

A third shallow pit, not labelled because it could not be excavated, was visible in the northern part of the west section of Trench 1. It is located below the (late) Hellenistic stone paving and must have been cut through by Evans.

Also visible at the level of the lowest surface was a rectangular stone-built feature, the so-called 'Wall 18'. This measured 0.60 m E-W × 1.65 m N-S and incorporated one ashlar slab. Only one course of stones remains, their top just 0.10 m above the seventh-century BC surface. It is therefore possible that the structure was used in the seventh century BC—perhaps as a working platform or bench—but its construction date and exact function elude us. As this area appears to have been (re)terraced shortly before it was put to use for metal-working, Wall 18 could be a remnant of some earlier structure. Parts of earlier mudbrick walls had also become exposed. Of the small finds found in this level only the whetstone of emery (103.1) may be associated with the metal-working activities.

*Level 2, middle surface, with hearth-pit C (Trench 2 only)*²¹

A second exterior surface, identified some 0.20 m above the first, consisted of medium-dark brown soil with pieces of burnt mudbrick, bone and, again, metallurgical debris. Located in the central portion of the excavated area was another pit, Pit C, the perimeter of which was roughly marked by a line of medium-sized field stones. It measured c.0.50 m SW-NE × 0.40 m E-W and may have been used on more than one occasion, as two larger sherds were found lying flat halfway down (PLATE 27 *c*). Pit C contained many pieces of burnt mudbrick and iron-

²⁰ Zembils associated with the lowest surface: nos. 98, 103, 104, 105, 106, 108, 109, 275, 276. Zembil associated with hearth-pit A: no. 100. Zembil associated with hearth-pit B: no. 273.

²¹ Zembils associated with the middle surface: nos. 269, 271, 272. Zembils associated with hearth-pit C: nos. 268, 270.

working debris and was c.0.15 m deep; the two bone tools (271.1, 269.3) are not especially distinctive, but could as well belong as not.

*Level 3, upper surface, with hearth-pit D (Trench 2 only)*²²

A third exterior surface with evidence for metal-working consisted of a similar medium dark brown soil as in level 2, with some burnt mudbrick fragments, stones and carbon and was c.0.10 m thick. Associated with it is Pit D, in the northern central part of the excavated area. This consisted of redder and quite hard soil, but did not contain burnt matter or metal-working debris. Lumps of iron slag and/or ore were noted around it, however.²³

*Level 4, wash level over metal-working area (Trench 2 only)*²⁴

The three working surfaces were overlain by a layer of hill-wash, 0.20–0.30 m thick, without apparent traces of metal-working. This hill-wash formed a surface that sloped down slightly from the west to the east. It was medium dark brown in colour and contained little or no stone. In the south, at the line of the Little Palace cutting, some hints of white plaster were noted, which had partially eroded over this level towards the north. This may suggest the existence of a seventh-century BC or earlier structure with plastered walls or floors in the area to the south cleared by Evans.

*Level 5, further hill-wash above level 4 (Trench 2 only)*²⁵

This consists of the earth directly below a patch of rough Classical paving. It is composed of grey-brown soil, with carbon and an occasional stone. It could be either levelled seventh-century-BC hill-wash or a fill brought in to provide a bedding for the Classical paving stones.

THE EARLY GREEK POTTERY (BY †J.N. COLDSTREAM)

The early Greek pottery (SM–LO) from the Little Palace North excavations is presented in six stratified deposits numbered B1–6, here arranged in chronological order. Category B7 is added to include a few unstratified pieces of intrinsic interest.

In the absence of any architectural features, five of these deposits are from clay-lined depressions or pans (B1, B2, B4) and wash levels (B3, B5), all from the western sector (Trench 3). Deposit B6 represents layers of debris from the metal-working quarter at the eastern end of the excavation.

Within each group the material is arranged in the following order: local pottery, fine, closed shapes followed by open; local pottery, coarse; imported pottery; small finds.

The fabric of the local pottery is described only where it diverges from what is normal in early Greek times (Coldstream *et al.* 2001, 21–2).

All measurements are in cm.

At the head of each catalogue entry, the zembil number is added in brackets.

²² Zembils associated with the upper surface: nos. 261, 264, 265, 266. Zembil associated with hearth-pit D: no. 267.

²³ All zembils (except nos. 261 and 267) yielded iron slag/ore fragments.

²⁴ Associated zembils: nos. 262, 263.

²⁵ Associated zembils: nos. 258, 260.

CATALOGUE²⁶*B1. Pan I, Trench 3, western extension***B1. 1** (2588) (PLATE 28 *a*)

Neck-handled amphora, handle fr. H. (pres.) 8.6, Th. (handle) 3. Gritty grey-brown clay, many large brown inclusions. Round handle attached well below rim, diagonally slashed to resemble rope. Paint above and round handle, but not in slashes. SM.

B1. 2 (2600) (PLATE 28 *a*)

Neck-handled amphora, handle fr. with rim. H. (pres.) 6, D. (rim) c.14, Th. of handle 3; of wall 0.4. Gritty orange-brown clay, many large white and brown inclusions, yellow wash. Round handle attached immediately below rim, diagonally slashed to resemble rope. Paint only on rim, in slashes, and in band below rim inside. SM/PG.

B1. 3 (2588) (PLATE 28 *a*)

Large bell-krater, wall fr. H. (pres.) 7.5, Th. 1.4. Purplish-brown clay, white and brown grits, semi-lustrous brown-black paint. From belly. To left, column of reserved lozenges with double arcaded fringe; to right, panel with solid and latticed triangles with concave edge and double outline. Below, beginning of zone with diagonal bars. Spatter inside. SM.

B1. 4 (2595) (PLATE 28 *a*)

Bell-krater, wall fr. H. (pres.) 7, Th. 0.8. lustrous brown paint. Concave profile. Solid double axe with top of haft, with double inner outlines and framed by verticals. Interior: band near rim, a few spattered drops below. SM. Cf. the krater Sackett 1992, 62, pls. 44.1, 45a.

B1. 5 (2589) (PLATE 28 *b*)

Bell-krater, wall fr. H. (pres.) 4, Th. 0.9. Straight profile. Latticed lozenge with concave edges, outlined; verticals to left. Interior coated. SM. For the decoration cf. the pyxis Sackett 1992, 64, pl. 49 *b*, from below the Stratigraphical Museum.

B1. 6 (2590) (PLATE 28 *b*)

Bell-krater, wall fr. H. (pres.) 5.3, Th. 0.5. Grey-brown core, cream wash. Profile slightly convex. In a vertical panel, wavy and straight lines with dotted fringe; to right, traces of curved lines. Spatter inside. SM/EPG.

B1. 7 (2589) (PLATE 28 *b*)

Bell-krater, wall fr. H. (pres.) 5.5, Th. 0.5–0.6. Profile slightly concave. Two verticals, with fringe of diagonal bars. A few spattered drops inside. SM/EPG.

B1. 8 (2597) (PLATE 28 *b*)

Bell-krater, wall fr. H. (pres.) 2.6, Th. 0.5. Profile slightly convex. Two verticals, curved line to left with hatched fill, trace of diagonal streamer to right with fringe. Spatter inside. SM/EPG.

B1. 9 (2597) (PLATE 28 *b*)

Bell-krater, wall fr. H. (pres.) 5.3, Th. 0.5. S profile. Five verticals, complex chevron motif to right, handle paint at left-hand break. SM/EPG.

B1. 10 (2515) (PLATE 28 *b*)

Bell-krater, wall fr. H. (pres.) 2.9, Th. 0.4. Dark grey clay. Verticals with zigzag fringe. Interior coated. SM/EPG.

B1. 11 (2600) (PLATE 28 *b*)

Bell-krater, lower body fr. H. (pres.) 6.5, Th. 0.6. Convex profile. Lower part of vertical panel: solid paint flanked by columns of hatching. Band and three lines below. Interior coated. SM/EPG.

B1. 12 (2588) (FIG. 7; PLATE 28 *c*)

Bell-krater, rim fr. H. (pres.) 7, D. (rim) c.20, Th. 0.4. Cream wash. S-profile, trace of handle root to right. Bars on rim, line below; paint near handle root. Thick band inside rim, spatter below. EPG.

B1. 13 (2588) (FIG. 7; PLATE 28 *c*)

Bell-krater, rim fr. H. (pres.) 7.6, D. (rim) c.24, Th. 0.6. Cream wash. S-profile. Paint on rim, trace of floating motif at lower break. Broad band below rim inside, no trace of spatter. EPG.

B1. 14 (2588) (PLATE 28 *c*)

Bell-krater, wall fr. H. (pres.) 4.5, Th. 0.65. S-profile. Column of latticed lozenges between groups of three verticals. A few spattered drops inside. EPG. Cf. Brock 1957, pl. 14 no. 207.

B1. 15 (2573) (PLATE 28 *c*)

Bell-krater, wall fr. H. (pres.) 5.2, Th. 0.7. Red-brown clay. From lower body. Lower part of central panel: column of inverted chevrons between groups of three verticals; band and line below. No spatter visible inside. EPG.

B1. 16 (2588) (FIG. 7; PLATE 28 *c*)

Bell-krater, wall fr. H. (pres.) 4.4, Th. 0.8. Deep orange-brown clay, traces of cream wash. Curved stripe enclosing horizontal and oblique stripes. Spatter inside. EPG.

²⁶ The designation 'Deposit A1' etc. has been reserved for the Bronze Age pottery.

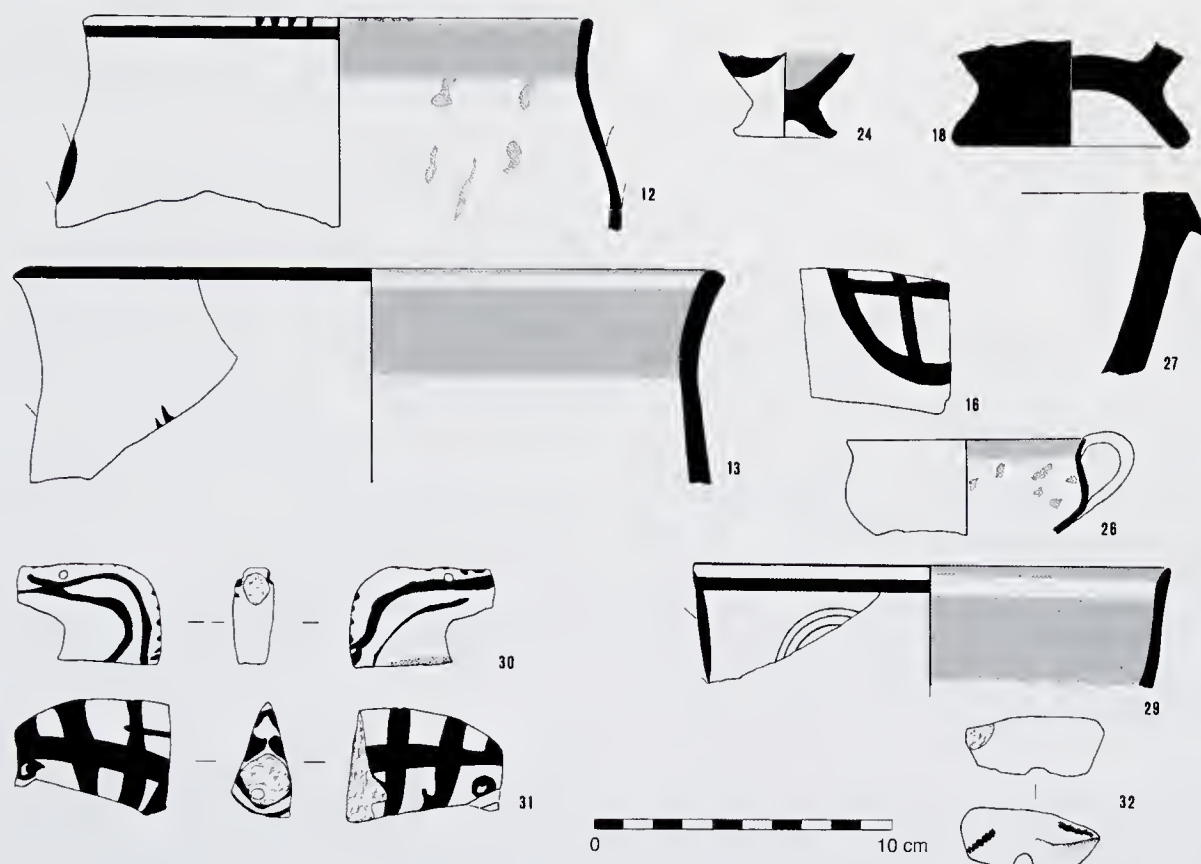


FIG. 7. Selected pottery from Deposit B1 (SM/EPG) (1 : 3).

B1. 17 (2590) (PLATE 28 c)

Bell-krater, wall fr. H. (pres.) 9.5, Th. 0.8–0.10. Orange-brown clay. From lower body. Band between lines; another group of lines below lower break. Spatter inside. EPG.

B1. 18 (2600) (FIG. 7; PLATE 28 c)

Bell-krater, base fr. H. (pres.) 3.2, D. (base) c.8. Red-brown clay. Low conical foot. Continuous lines outside, no paint inside. EPG.

B1. 19 (2515) (PLATE 28 d)

Bell-skyphos, wall fr. H. (pres.) 3.5. Dark ground: wavy line in reserved zone. Interior coated. SM/EPG. Cf. Coldstream and Catling 1996, fig. 93, T. 60. 32.

B1. 20 (2590) (PLATE 28 d)

Bell-skyphos, rim fr. H. (pres.) 3, D. (rim) c.10. Lustrous black paint. S-profile. Paint on rim, trace of scribbled wavy line at lower break. Interior coated but for reserved line below rim. SM.

B1. 21 (2598) (PLATE 28 d)

Large bell-skyphos, wall and handle fr. H. (pres.) 5.7. Lustrous brown paint. Round handle. Exterior unpainted, interior coated. SM.

B1. 22 (2600) (PLATE 28 d)

Large bell-skyphos, wall fr. H. (pres.) 3. Verticals with arcaded fringe. Interior coated. SM.

B1. 23 (2572) (PLATE 28 d)

Large bell-skyphos, wall fr. H. (pres.) 3.8. Zigzag column between verticals, flanked by sets of four irregular arcs. Interior coated. SM.

B1. 24 (2589) (FIG. 7; PLATE 28 d)

Bell-skyphos, base fr. H. (pres.) 2.7, D. (base) 3. Lustrous black paint. Poorly turned conical foot. Dipped: interior fully coated, paint at upper break outside. SM/PG.

B1. 25 (2598) (PLATE 29 a)

Bell-skyphos, wall fr. H. (pres.) 5.8. S-profile, near rim. Wavy line, band below. Inside, band at upper break. SM/EPG. Cf. Coldstream 1972, 76, C 35, pl. 19, from the Royal Road excavations.

B1. 26 (2576) (FIG. 7; PLATE 29 a)

Cup, rim, handle and wall fr. H. (pres.) 3.8, D. (rim) c.8, Th. 0.2. Grey-brown clay. Slightly oblique lip, without articulation; strap handle attached inside rim. Upper part, including handle, dipped from the

front. Inside, irregular band under rim, spatter below. SM. Cf. Sackett 1992, pl. 43. 7–8.

B1. 27 (2590) (FIG. 7; PLATE 29 *a*)

Coarse lekane, rim fr. H. (pres.) 6, D. c.26. Gritty grey-brown clay, large white and brown inclusions. Squared projecting rim, flat above; oblique profile. Undecorated. SM? Cf. Sackett 1992, pl. 48 *d* 1.

B1. 28 (2588) (PLATE 28 *a*)

Amphora, wall fr. H. (pres.) 5, Th. o.9. Orange-buff clay, white and brown grits, airholes, lustrous brown-black paint. From lower body. Band, three lines. Attic LPG.

B1. 29 (2588) (FIG. 7; PLATE 29 *a*)

Skyphos, rim fr. H (pres.) 3.8, D. (rim) c.17. Pink-brown clay, much mica, white grits, brown-black paint. S-profile, near handle. Paint on rim, band below; set of thin concentric circles. Diagonal daub near the position of the handle. Interior coated but for reserved line below rim. Cycladic LPG, imitating the frequently imported Attic LPG type, as Coldstream *et al.* 2001, 53, fig. 1. 17a.

B1. 30 (2588) (FIG. 7; PLATE 29 *b–c*)

Horse figurine, head and neck fr. Orange brown clay, red-brown paint. Slight indentation for muzzle, eye pierced through. In paint, rows of dots for mane, curved lines for harness.

B1. 31 (2589) (FIG. 7; PLATE 29 *b–c*)

Horse figurine, head and neck fr., muzzle broken off. Orange-brown clay, white grits, brown paint. Sharp angle for mane; hole pierced at front break. In paint: large blob for eyes, harness schematically rendered by crossing bands, horizontal and vertical. Perhaps a child's toy, with hole for traction.

B1. 32 (2589) (FIG. 7; PLATE 29 *b–c*)

Bull (?) figurine, head fr. H. (pres.) 4. Hard orange clay, in places burnt grey. Hole, D. o.4, pierced through at break.

B1. 33 (2589) (PLATE 29 *b–c*)

Horn fr. H. (pres.) 3.5, D. (max.) 1.2. orange-grey clay, unpainted. Broken at both ends.

The local pottery in this deposit spans the change from SM to EPG. In the decoration there are some authentically SM motifs: on the bell-kraters, the large double axe (**B1. 3**) and the latticed motifs with concave sides (**B1. 4–5**); on the bell-skyphoi, the arcaded fringes (**B1. 22, 23**) as well as the reserved band inside the rim of **B1. 20**, with interior coating (Sackett 1992, 61–2). The latest features, however, will take us a little way into EPG: the deep shape of the bell-krater **B1. 13** (Coldstream and Catling 1996, 368–9, 414), the crisply turned conical foot of **B1. 18** and, on **B1. 14**, the strictly rectilinear column of latticed lozenges. In between we have sparse vertical columns with dotted fringes (**B1. 6–11**), still of SM character, but appearing also as the central motifs of deep bell-kraters at the outset of PG (e.g. Brock 1957, 21, no. 177; Coldstream and Catling 1996, pl. 176, T. 175. 25). These belong to a transitional SM/EPG stage (Coldstream and Catling 1996, 414) when some local PG features had appeared, but before the decoration showed any sign of Attic influence in the adoption of compass-drawn concentric circles. To this horizon, on the bell-skyphoi, belong the maladroit shaping of the conical foot, **B1. 24** (cf. Coldstream 1972, 67, 69, A19–23 and pl. 15), and the wavy lines of **B1. 19** and **25**, common to both SM and EPG.

The other local shapes, though not closely datable, fall within these chronological limits. The dipped cup **B1. 26**, a type surviving from SM (Sackett 1992, 61 'other cups') well into PG (Coldstream and Catling 1996, 385, class B), has a shallow shape best matched in SM contexts (cf. Popham 1984, pl. 43.7). Rope handles of neck-handled amphorae (**B1. 1, 2**) are an indestructible 'type-fossil' of these years (Coldstream *et al.* 2001, 23 and pl. 1 *a*), again, lasting from SM well into PG.

The Attic fragment **B1. 28**, from the lower body of an amphora, offers no clue to its place within the Attic PG sequence; one can only observe that the banding is most consistent with the belly-handled type (Desborough 1952, pl. 5 Kerameikos 1089), serving in Athens as an urn for female cremations. More helpful is the rim fragment **B1. 29** from a Cycladic PG

skyphos, bearing the only occurrence in this deposit of compass-drawn concentric circles;²⁷ thin and widely spaced, the circles indicate an early stage of Cycladic imitations of this Atticizing shape.

B2. Pan II, disturbed lower fill, Trench 3

B2. 1 (2586) (PLATE 29 *d*)

Neck-handled amphora, handle fr. H. (pres.) 5.5, Th. 3. Yellow wash. Circular in section, paint in the diagonal slashes. SM/PG.

B2. 2 (2584) (PLATE 29 *d*)

Neck-handled amphora, neck and shoulder fr. H. (pres.) 9. Red-brown clay, many large brown grits, yellow slip. No articulation between neck and shoulder. At base of neck, band with pendent languettes. PG.

B2. 3 (2581) (FIG. 8; PLATE 29 *d*)

Necked pithos, rim and shoulder fr. H. (pres.) 5.5, D. (rim) *c.*14. Oblique neck passing gently into bellied body. Paint on neck. M-LPG?

B2. 4 (2581) (FIG. 8; PLATE 29 *d*)

Necked pithos, rim and shoulder fr. H. (pres.) 6, D. (rim) *c.*13. Semi-lustrous brown paint. Projecting rim, short neck passing smoothly into bellied body. Paint on neck, on and inside rim; quadruple circles on shoulder. LPG. Cf. Payne 1927–8, 233, no. 11, pl. 5. 5; slightly later, Coldstream and Catling 1996, 34, M 19, pl. 69.

B2. 5 (2584) (PLATE 29 *d*)

Necked pithos, shoulder fr. L. (pres.) 6.5. Red-brown clay. Set of seven semicircles, part of latticed lozenge (or inverted triangle); two bands below. PGB-EG.

B2. 6 (2586) (FIG. 8; PLATE 30 *a*)

Hydria, rim, neck and handle fr. H. (pres.) 6, D. (rim) *c.*10. Red-brown clay, yellow slip. Strap handle attached to thickened rim. Paint on and inside rim; wavy stripe on handle, band at upper attachment. PG.

B2. 7 (2497) (FIG. 8; PLATE 30 *a*)

Hydria, rim and neck fr. H. (pres.) 7.3, D. (rim) *c.*13. Projecting rim, concave neck. Paint on and outside rim; inside, thick band below rim. PG.

B2. 8 (2584) (PLATE 30 *a*)

Hydria, belly fr. H. (pres.) 12, Th. 0.8. Dull red-brown paint. Part of bracket, pendent from band. PG.

B2. 9 (2497) (PLATE 29 *d*)

Lekythos, shoulder fr. L. (pres.) 2.1, Th. 0.2. Lustrous black paint. Latticed triangle below band.

PGB. Cf. Coldstream and Catling 1996, pl. 79, Q 18–39.

B2. 10 (2497) (PLATE 30 *b*)

Krater, rim fr. H. (pres.) 3, D. (rim) *c.*28, Th. 0.8. Pink-brown clay. Slightly concave profile. Fringed bracket motif. Interior coated but for reserved line below rim. SM.

B2. 11 (2501) (PLATE 30 *b*)

Krater, rim fr. H. (pres.) 3, D. (rim) *c.*22, Th. 0.5. Grey clay. Slightly concave profile. Band below rim; part of thick spiral. SM, or possibly LM III C.

B2. 12 (2582) (PLATE 30 *b*)

Bell-krater, rim fr. H. (pres.) 3.3, D. (rim) *c.*20, Th. 0.5. Red-brown clay. Concave profile. Band on rim, vertical lines below. Interior coated but for reserved line below rim. SM.

B2. 13 (2501) (PLATE 30 *b*)

Bell-krater, wall fr. H. (pres.) 5.5, Th. 0.5. Red-brown clay. Convex profile. Columns of triple arcade, diagonal bars, inverted chevrons, and solid paint. Below: two lines, band, line. Interior fully coated. SM. Possibly from same vessel as **B2. 12**. Cf. *AR* 29 (1983), 87 FIG. 66.

B2. 14 (2497) (PLATE 30 *b*)

Bell-krater, wall fr. H. (pres.) 4.5, Th. 0.4. S-profile, near rim. Trace of upper band. Below, three verticals with chevron fringe; four verticals, trace of latticed panel to right. EPG.

B2. 15 (2580) (PLATE 30 *b*)

Bell-krater, rim fr. H. (pres.) 6.6, D. (rim) *c.*22, Th. 0.6. Oblique lip, ridge below. Band on lip and ridge; set of six concentric circles. Inside, thin band near rim, spatter below. M-LPG.

B2. 16 (2584) (PLATE 30 *b*)

Bell-krater, rim fr. H. (pres.) 5, D. (rim) *c.*24, Th. 0.8. Large white grits. Everted rim, sharp ridge below. Thick band on lip and ridge, similar band inside. M-LPG.

B2. 17 (2586) (FIG. 8; PLATE 30 *c*)

Small bell-krater, base fr. H. (pres.) 4, D. (rim) 5.5, Th. 0.5. Pink-buff clay, many large brown grits. Low conical foot. Band at base, exterior otherwise unpainted; fully coated inside. PG.

flanked by concentric circles; cf. Brock 1957, pl. 14 no. 207.

²⁷ It is very likely, however, that the rectilinear lozenge column on the EPG bell-krater fr. **B1. 14** would have been



FIG. 8. Selected pottery from Deposit B2 (PGB/EG) (1 : 3).

B2. 18 (2582) (FIG. 8; PLATE 30 c)

Pedestalised krater, foot fr. H. (pres.) 5, D. (base) c.11. Semi-lustrous brown paint. High conical foot, spreading to edge. Dark ground: reserved zone with groups of three bars. PGB. For the shape cf. Teke D 13, Coldstream and Catling 1996, fig. 57; Ayios Ioannis I. 11, Boardman 1960, pl. 31.

B2. 19 (2497) (PLATE 30 c)

Krater, wall fr. H. (pres.) 4, Th. 0.5. Pink-grey clay, semi-lustrous black paint. Ridge at upper break, between lip and body. Set of eight concentric circles. Interior coated. M-LPG. A smaller version of Coldstream and Catling 1996, pl. 178, T. 175. 27, 28.

B2. 20 (2581) (FIG. 8; PLATE 30 c)

Kalathos, rim fr. H. (pres.) 4.8, D. (rim) c.15, Th. 0.4. Flat rim, everted lip. Conical profile. Irregular billets on rim, band and two wavy lines below. Band inside. PGB-EG. Cf. Coldstream and Catling 1996, pl. 124, T. 75. 161.

B2. 21 (2498) (PLATE 30 c)

Bell-skyphos, wall fr. H. (pres.) 3.8, Th. 0.3. Dark ground, with wavy line in reserved zone. Interior

coated. SM/EPG. Cf. Coldstream and Catling 1996, fig. 93, T. 60. 32.

B2. 22 (2580) (FIG. 8; PLATE 30 c)

Large bell-skyphos, base fr. H. (pres.) 4.4, D. (base) 4, Th. 0.4. Lustrous brown-black paint. Slightly concave foot, crisply articulated. Exterior: trace of dipping at upper break. Interior coated but for circle on floor. M-LPG.

B2. 23 (2501) (PLATE 30 c)

Skyphos, wall fr. H. 2.4, Th. 0.3. Set of seven pendent semicircles below band. Interior coated. LPG. Cf. Coldstream and Catling 1996, pl. 65, J 24, 31.

B2. 24 (2581) (FIG. 8; PLATE 30 d)

Cup, rim and handle fr. H. (pres.) 9, D. (rim) c.13, Th. 0.4. S-profile, deep body, strap handle attached inside rim. Dipped: paint only on upper handle attachment, and diagonal streak on lower body. SM. For the shape cf. Brock 1957, pl. 3, nos. 10. 16, 19; Coldstream 1972, 69, A 25, pl. 15.

B2. 25 (2581) (PLATE 30 d)

Cup, rim fr. H. (pres.) 4.6, D. (rim) 12. Everted lip, bell-shaped body. Upper part dipped in paint from

handle. LPG. Coldstream and Catling 1996, 385, class C.

B2. 26 (2586) (PLATE 30 *d*)

Cup, rim fr. H. (pres.) 4.3, D. (rim) c.11. Orange-grey clay. Shape as **B2. 25**. Upper part dipped on both sides from handle. LPG.

B2. 27 (2585) (FIG. 8; PLATE 30 *d*)

Black cup, rim fr. H. 3.8, D. (rim) c.13, Th. 0.35. Everted lip, not offset. Fully coated. PGB-EG: Brock 1957, 166, B (ii), the 'rough and heavy' class; Coldstream and Catling 1996, 386–7, D (ii) (a).

B2. 28 (2582) (PLATE 30 *d*)

Black cup, base fr. H. (pres.) 3.6, D. (base) 3.5, Th. 0.4. Bellied body, flat base. Fully coated but for floor and underside. PGB-EG. As **B2. 27**.

B2. 29 (2501) (PLATE 30 *a*)

Coarse pithos, wall fr. H. (pres.) 7, Th. 1.4. Coarse gritty clay, many brown and black inclusions, thin cream wash, dull black paint. Part of plant motif; to right, human figure with raised arm (?). SM?

B2. 30 (2497) (PLATE 30 *a*)

Coarse pithos, wall fr. H. (pres.) 4.5, Th. 2. Coarse gritty grey clay, many brown inclusions, orange surface. Raised band with zone of vertical chevrons. PG?

B2. 31 (2503) (FIG. 8; PLATE 30 *d*)

Coarse lekane, rim fr. H. (pres.) 5, D. (rim) c.41, Th. 0.9. Gritty orange-brown clay, many large white and black inclusions, yellow wash. Thickened rim, slightly concave outside. PG? On the development of this shape see Coldstream *et al.* 2001, 63, fig. 1. 22 *g–k*.

In this deposit, stratified above B1, most of the diagnostic pieces belong to the end of the ninth century, in spite of some earlier residual fragments. Among the latter, especial interest attaches to **B2. 29**, from a large and thick-walled coarse vessel portraying a scene containing what appears to be part of a human figure confronting a plant motif, too fragmentary to merit any attempt at restoration. With its black inclusions, unusual in the local coarse pottery, it may prove to be an import when subjected to petrographic analysis.

Late tenth- and ninth-century characteristics among the later pieces are manifold. To name a few: sharp ridges under the rims of bell-kraters (**B2. 15, 16**) preclude a date earlier than MPG (Coldstream and Catling 1996, 369, class A ii); and imitations of PG kraters of mainland type, with high conical feet (**B2. 18**), do not begin before that phase (Coldstream and Catling 1996, 374–5, class C i). As a motif on skyphoi, pendent semicircles (**B2. 23**) appear very rarely at Knossos, and perhaps under Euboean influence; they are otherwise known only on three shallow skyphoi from a tomb context of LPG (Coldstream and Catling 1996, 28–9, J 18, 24, 31; 380, class B). A small scrap from a lekythos (**B2. 19**) is well matched by numerous examples offered in a PGB burial of a child.²⁸ The latest drinking vessels are early and thick-walled examples of the large black coated cup (**B2. 27, 28**), of PGB-EG date. Equally late is the kalathos fragment **B2. 20**, from one of the latest examples of this shape.

The terminal date of this deposit, then, should be around 800 BC.

B3. Hill-wash, Trenches 2–3

Not stratigraphically related to B1 and B2. A thin brown layer above a grey; the four pieces from the upper brown earth are marked with an asterisk.

***B3. 1** (1516) (PLATE 31 *a*)

Belly-handled amphora, wall fr. H. (pres.) 3.6, Th. 0.8. Semi-lustrous brown-black paint. From belly.

Double chevron column, four verticals, beginning of panel with star in lower left corner. Line below. E-MG, Atticizing.

²⁸ Coldstream and Catling 1996, 46, sealed under the larnax in tomb Q; 352, class B, Q 18, 34, 37–8. Child burial: Coldstream, *PAA* 71 (1996), 247.

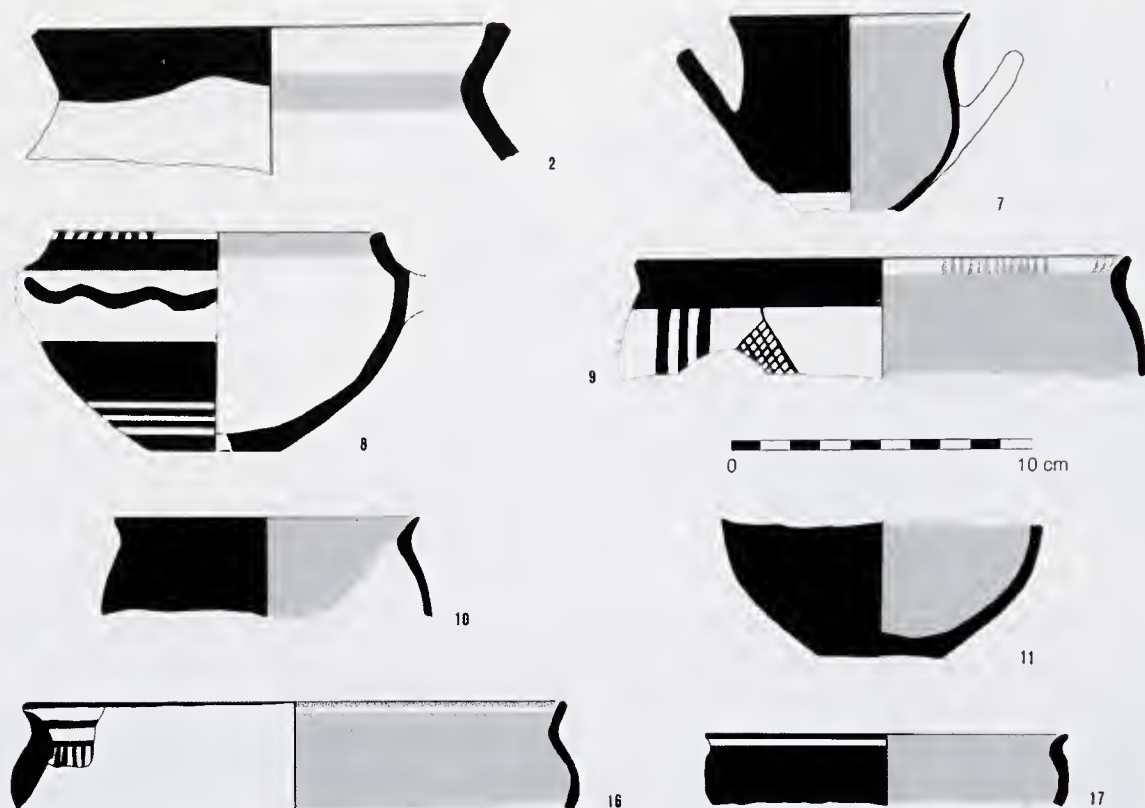


FIG. 9. Selected pottery from Deposit B3 (MG) (1 : 3).

B3. 2 (1524) (FIG. 9; PLATE 31 *a*)

Necked pithos, rim fr. H. (pres.) 2.5, D. (rim) c.13, Th. 0.8. Oblique lip offset from bellied body. Paint on lip; inside, band below rim. PGB-EG.

B3. 3 (2232) (PLATE 31 *a*)

Necked pithos (?), wall fr. H. (pres.) 6.8, Th. 0.8. Cream wash. Set of eleven concentric circles, irregularly spaced, enclosing reserved cross. EG. Cf. Brock 1957, 38, no. 387, pl. 27.

B3. 4 (1278) (PLATE 31 *b*)

Oinochoe, four wall frs. H. (pres.) of largest 15, Th. 0.5. Lustrous but fugitive brown-black paint. Globular body, stump of strap handle, elliptical in section. Shoulder: at upper break, band with pendent languettes; paint round handle root. Band, three lines above and below; three more bands on lower body. MPG. Cf. Ayios Ioannis tomb V. 8, Boardman 1960, pl. 35.

B3. 5 (2232) (PLATE 31 *a*)

Bell-krater, wall fr. H. (pres.) 6.5, Th. 0.5. Slight ridge between lip and body. Paint on lip; quadruple circle containing reserved cross. Spatter inside. LPG-PGB.

***B3. 6** (1516) (PLATE 31 *a*)

Krater, wall fr. H. (pres.) 5.8, Th. 0.5. Cream slip. Black paint, lustrous outside, thinning to brown for decoration. Convex profile. Between groups of lines, quadruple zigzag, ending to left. MG, Atticizing.

B3. 7 (1278) (FIG. 9; PLATE 31 *c*)

Bell-skyphos, rim, wall and handle frs. H. (pres.) 6.5, D. (rim) c.10, Th. 0.3. Yellow-brown clay, semi-lustrous black paint. S-profile, rising round handle. Dipped to below handle. PG.

B3. 8 (1520) (FIG. 9; PLATE 31 *c*)

Skyphos, full body profile. H. 7, D. (rim) c.11, Th. 0.5-0.7. Cream slip. Concave lip, leaning inward; sharp carination below. Flat base. Stump of horizontal handle, elliptical in section. Lip: bars at rim, above band. Thick wavy line in handle zone. Below, broad band, lines, band overlapping under base. Interior: band at rim, spatter below. EG. Coldstream and Catling 1996, 380, class B.

B3. 9 (2232) (FIG. 9; PLATE 31 *c*)

Skyphos, rim fr. H. (pres.) 4, D. (rim) c.18, Th. 0.4. Short oblique lip, not offset. Band on and below lip. Three vertical lines to left, near handle. Part of

lattice triangle, with bar on its apex. Interior: bars inside rim, otherwise coated. EG?

B3. 10 (1524) (FIG. 9; PLATE 31 *c*)

Black cup, rim fr. H. (pres.) 3, D. (rim) *c.*10, Th. 0.2–0.3. Semi-lustrous black paint. Oblique lip with slight ridge, bellied body, trace of handle to right. Fully coated but for area near handle inside. PGB–EG: Brock's 'rough and heavy' class, Brock 1957, 166, B (ii).

***B3. 11** (1521) (FIG. 9; PLATE 31 *c*)

Black cup, base fr. H. (pres.) 4.7, D. (base) 4–5, Th. 0.4–0.6. Semi-lustrous black paint. Hemispherical shape, string mark below base. Fully coated. PGB–EG. As **B3. 10**.

B3. 12 (1507) (PLATE 31 *c*)

Black cup, base fr. H. (pres.) 3, D. (base) *c.*6, Th. 0.4–0.6. As **B3. 11**. PGB–EG.

B3. 13 (1524) (PLATE 31 *d*)

Belly-handled amphora, belly fr. H. (pres.) 3, Th. 0.9. Orange-buff clay, lustrous brown-black paint. Panel of concentric circles, star in corner. Attic MG. Cf. Athens 219, CVA 5, pl. 96.

B3. 14 (1518) (PLATE 31 *d*)

Krater, wall fr. H. (pres.) 2.5, Th. 0.7. Clay as **B3. 13**. Part of hatched meander. Attic MG.

***B3. 15** (1519) (PLATE 31 *d*)

Krater, wall fr. H. (pres.) 6, Th. 0.7. Pink-brown clay, brown grits, much mica, lustrous brown-black paint. Three vertical bars to left; set of concentric circles, with accidental blob. Cycladic LPG?

B3. 16 (2232) (FIG. 9; PLATE 31 *d*)

Skyphos, rim fr. H. (pres.) 3.7, D. (rim) *c.*18, Th. 0.3. Red-brown clay, mica, brown grits, lustrous black paint. Oblique lip, not offset from shallow bellied body. No trace of handle. Dark ground. Two reserved lines on lip. Below, trace of meander (?) panel. Reserved line below rim inside. Cycladic EG II–MG I.

B3. 17 (1507) (FIG. 9; PLATE 31 *d*)

Cup, rim fr. H. (pres.) 2.5, D. (rim) *c.*11, Th. 0.4. Clay as **B3. 13**. Low concave lip, offset. Fully coated but for reserved line below rim, inside and outside. Attic EG II–MG I. Many similar cups, with flat base, were imported to Knossos: Coldstream and Catling 1996, 401–2, where cf. especially G 69–76.

The few diagnostic pieces in this wash deposit, as in B2, belong mainly to the ninth century. For their dating, imports from Attica and the Cyclades (**B3. 13–17**) offer some confirmation.

The impact of Attic MG influence can be seen in two major shapes. The large belly-handled amphora (Attic, **B3. 13**, local, **B3. 1**) appears frequently in the cemeteries (Coldstream and Catling 1996, 394–6 (Attic), 335–8 (local)). The Attic MG krater **B3. 14**, probably low-based, finds a local imitation in **B3. 6**. The shallow skyphos **B3. 8** is of a distinctive local type, a miniature of clay cauldron imitations, on which the thick wavy line motif is especially characteristic of EG (Coldstream and Catling 1996, 380, class B). The cups display a contrast in size between the large coarse and heavy black cups in the local PGB–EG repertoire (**B3. 10–12**) and the small and delicate Attic type (**B3. 17**); but the frequently imported Attic cups, with their short offset lips and bellied bodies, could well have given rise to the larger local versions: Coldstream and Catling 1996, Class d (i), close imitations of Attic cups; D (ii), enlarged black cups.

The four items from the upper brown earth include the two latest datable pieces from this deposit: **B3. 1** (amphora) and **B3. 6** (krater). These belong to the local MG phase which arose not before Attic MG II, in the early eighth century (Coldstream and Catling 1996, 41). We may, then, suggest terminal dates of *c.*800 for the underlying grey layer, and *c.*775 for the brown earth above.

B4. Pan II, upper fill, Trench 3

B4. 1 (2496) (PLATE 32 *a*)

Belly-handled (?) amphora, body fr. H. (pres.) 9. From shoulder. Seven concentric circles, irregularly spaced, enclosing a reserved cross. M–LPG. Cf. Coldstream and Catling 1996, pl. 82, Q 66.

B4. 2 (2482) (PLATE 32 *a*)

Amphora (?), body fr. H. (pres.) 5. Grey-brown clay, trace of burning. Set of eleven concentric circles. PG–EG.

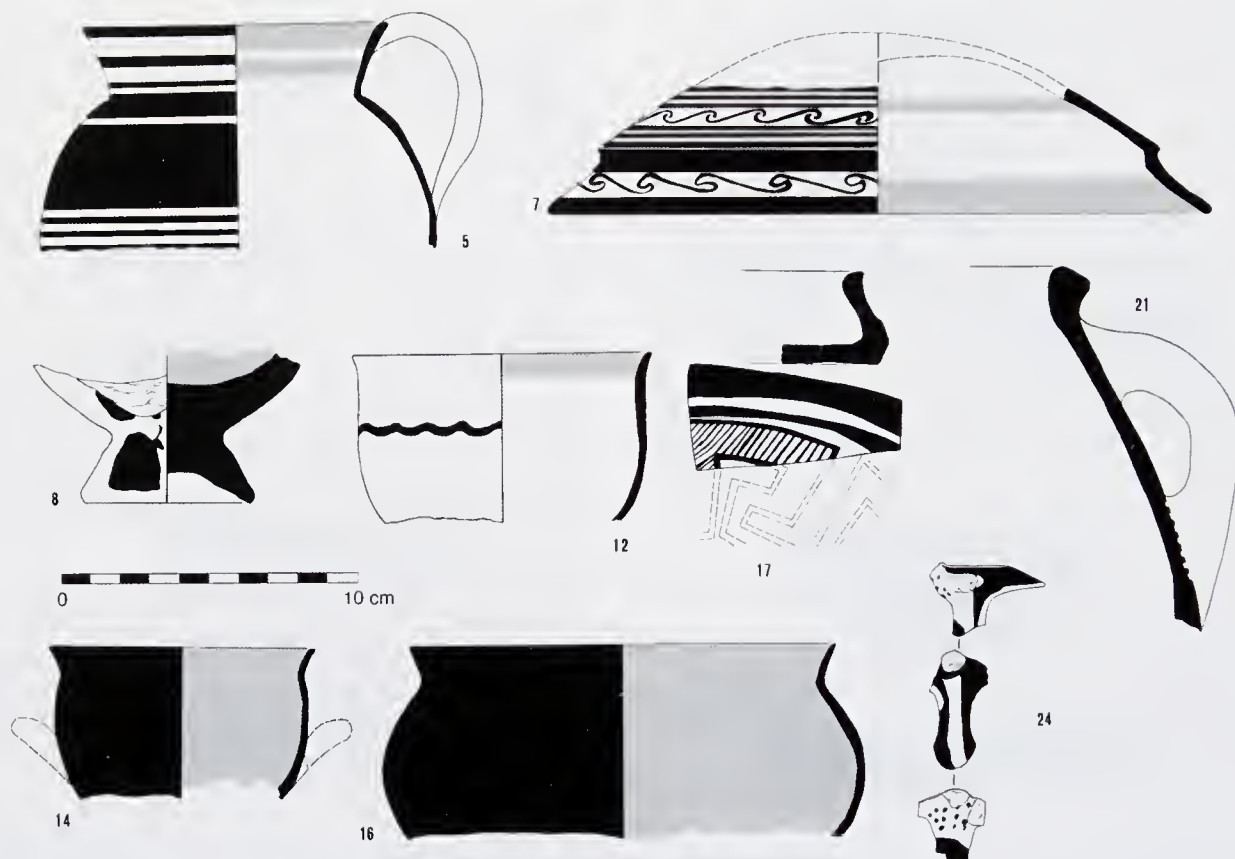


FIG. 10. Selected pottery from Deposit B4 (MG) (1 : 3).

B4. 3 (2483) (PLATE 32 *a*)

Pithos (?), body fr. near handle. H. (pres.) 4.5. Column of dotted lozenge chain, near handle root. MG.

B4. 4 (2496) (PLATE 32 *a*)

Straight-sided pyxis, two body frs. with handle roots. H. (pres.) 6.2. Carinated shoulder, slightly convex body, round handles. Shoulder: diagonal stripes (or large zigzag). Body: at handle level, three wavy lines; below, two lines and solid paint. Handles coated. Spatter inside. EPG. Cf. Brock 1957, pl. 11, no 163.

B4. 5 (2482) (FIG. 10; PLATE 32 *a*)

Mug, rim, body and handle fr. H. (pres.) 8, D. (rim) c.10. Semi-lustrous black paint. Oblique neck, globular body, strap handle. Three irregular lines on neck. Shoulder coated but for one reserved line; more lines on belly. Handle barred. MG. Cf. Coldstream *et al.* 1981, no. 9, fig. 4.

B4. 6 (2490) (PLATE 32 *a*)

Lekythos, neck fr. H. (pres.) 2, Th. 0.9. Lustrous black paint. From lower part of neck. White latticing. EO, Praisos type, Coldstream and Catling 1996, 432, class D, where cf. especially T. 75. 209, fig. 99.

B4. 7 (2483) (FIG. 10; PLATE 32 *c*)

Domed lid, rim fr. H. (pres.) 4, D. (rim) c.22. Red-brown clay. Broad lip, sharp carination. Lip: running spiral between bands. Body: horizontal Ss between groups of three lines. EG. Coldstream and Catling 1996, 328, omphaloid class, A(1).

B4. 8 (2483) (FIG. 10; PLATE 32 *d*)

Small bell-krater, base and body fr. H. (pres.) 5.5, D. (base) 5.8, Th. 0.9. Deep body sharply offset from high conical foot. Trickle of paint to base. Interior coated. PG.

B4. 9 (2495) (PLATE 32 *b*)

Bell-krater, wall fr. H. (pres.) 7. Red-brown clay. Set of seven concentric circles enclosing hourglass. Spatter inside. LPG. Cf. Brock 1957, pl. 77, no. 1467.

B4. 10 (2480) (PLATE 32 *b*)

Bell-krater, wall fr. H. (pres.) 4.8. Red-brown clay. Irregular set of five concentric circles, enclosing hourglass; three verticals to right. PGB? Cf. Coldstream and Catling 1996, pl. 232, T. 287. 10.

B4. 11 (2483) (PLATE 32 *b*)

Krater, body fr. H. (pres.) 7, Th. 1. Pink-brown clay, purplish core, semi-lustrous black paint. Meander,

three lines, multiple zigzag. Interior coated. MG, Atticizing. Perhaps from pedestalled type. Cf. Teke no. 19, Hutchinson and Boardman 1954, pl. 25, slightly later.

B4. 12 (2495) (FIG. 10; PLATE 32 *b*)

Cup, rim fr. H. (pres.) 5.5, D. (rim) c.10. Large white grits, dull red paint. S-profile. Wavy line below rim, band inside. EPG. Cf. Boardman 1960, pl. 36, viii. 14, from Ayios Ioannis.

B4. 13 (2483) (PLATE 32 *b*)

Bell-skyphos, rim fr. H. (pres.) 4.8, Th. 0.3, D. (rim) c.8. S-profile. Part of wavy band. Interior coated. Heavy fabric. SM-EPG. Cf. Coldstream 1972, 76, C 35, pl. 19.

B4. 14 (2482) (FIG. 10; PLATE 32 *b*)

Bell-skyphos, rim fr. with handle root. H. (pres.) 5, D. (rim) 8.4. Dipped. LPG-PGB. Cf. Coldstream and Catling 1996, pl. 100, T. 28. 13, 15, 17.

B4. 15 (2480) (PLATE 33 *b*)

Skyphos, wall fr. H. (pres.) 2.6 Grey-buff clay, cream slip; black paint, fugitive outside, lustrous inside. Lip apparently offset. Panel of triple zigzag framed by vertical bars, lines above and below. MG, Atticizing. Cf. Teke no. 71, Hutchinson and Boardman 1954, pl. 26.

B4. 16 (2482) (FIG. 10; PLATE 33 *a*)

Black cup, rim and body fr. H. (pres.) 6.3, D. (rim) c.14.5. Purplish brown clay; brown paint, lustrous inside. Oblique lip set off from bellied body. Fully coated. MG, late. cf. Coldstream and Catling 1996, pl. 197, T. 218. 110. An early example of Brock's 'deeper' class, Brock 1957, 166, B (iii).

B4. 17 (2482) (FIG. 10; PLATE 33 *b*)

Tray, profile. H. 3.1, D. (rim) c.27. Cream slip, lustrous black paint. Inward-sloping concave lip, convex wall with slight carination, flat base. Exterior: lip reserved, wall coated. Under base, part of meander within line and outer band. Interior: line below rim, reserved band, paint extending to outer edge of floor, reserved at inner break. M/LG. Coldstream and Catling 1996, 392, class C. Cf. especially the frs. T. 26. 15, pl. 99.

B4. 18 (2480) (PLATE 12 *b*)

Tray (?), profile. H. 3, D. (rim) c.26. Lustrous black

paint. Straight wall, sloping outwards; flat base. Stumps of reflex handle at rim. Paint on handle, triple arcs below. Paint under base. Interior unpainted. G. An unusual type.

B4. 19 (2480) (PLATE 32 *c*)

Krater, rim fr. H. (pres.) 2.8. Fine orange-buff clay, lustrous brown-black paint. Concave profile. From rim, band, line, set of concentric circles. reserved line inside rim. Attic LPG. Cf. Coldstream and Catling 1996, pl. 184, T. 207. 7.

B4. 20 (2480) (PLATE 32 *d*)

Coarse pithos, wall fr. H. (pres.) 8.5, Th. 2.1. Gritty red-brown clay, many large brown inclusions, cream wash. Zone of stamped triple circles between grooves. G.

B4. 21 (2496) (FIG. 10; PLATE 32 *d*)

Coarse jar, rim, body and handle fr. H. (pres.) 11.5, D. (rim) c.18. Gritty red-brown clay, grey core, many white and brown inclusions. Short neck, slightly everted; bellied body, thick strap handle. Two shallow grooves on neck. G. Cf. Coldstream and Catling 1996, fig. 132, T. 219. 67.

B4. 22 (2483) (PLATE 34 *c*)

Cooking jug, two frs., rim and body. D. (rim) c.12. Gritty grey-brown clay, trace of burning. Slightly oblique neck, ovoid body. Five grooves on neck. G. On this shape see Coldstream *et al.* 2001, 63, fig. 1. 23 *a-d*.

B4. 23 (2483) (PLATE 33 *a*)

Coarse lekane, body and base fr. H. (pres.) 8.5, D. (base) c.28. Gritty red-brown clay, many white and brown inclusions, cream wash. Sloping wall, flat base. Set of five shallow grooves near base. G. On this shape see Coldstream *et al.* 2001, 63, fig. 1. 22 *g-k*.

B4. 24 (2483) (FIG. 10; PLATE 33 *d*)

Bird figurine. H. (pres.) 2.4. L. (pres.) 3.8. Pale orange clay, white and brown grits, semi-lustrous brown-black paint. Head and wings broken off. Central hole, perhaps for attachment to a vessel. Flattened tail, wings evidently spread. Paint on wings and flanks, with reserved stripe down centre of back and tail; dots to indicate speckled breast. G. Cf. Coldstream and Catling 1996, 81, T. 31. 4, pl. 101, attached to the rim of a small jug.

Though containing some earlier material, this deposit's lower limit is marked by several diagnostic pieces of the local MG phase. In the absence of any obviously LG sherds, a small scrap from an EO lekythos of Praisos type (**B4. 6**) would appear to be an intrusion from Deposit B5, the upper wash above Pan II.

Finely decorated vessels offered in tombs are represented here by the EG domed lid with

curvilinear decoration (**B4. 7**) and a sherd that appears to be from an Atticizing MG cremation pithos (**B4. 3**). Other Atticizing pieces of MG, from the krater **B4. 11** and the skyphos **B4. 15**, show some attempt to reproduce the lustrous paint of the Attic imports (Coldstream and Catling 1996, 471, group B). The example of superior Attic technique may also have caused a marked improvement in the fabric of the local large black cups, from the 'coarse and heavy' type (mainly PGB-EG, as **B3. 10-12**) to the fine and thin-walled vessels (Coldstream and Catling 1996, 387, class D iiiia), ubiquitous in later Knossian deposits from LG onwards. The fragment **B4. 16** is an early example of this improved type, perhaps at the turn from MG to LG.

We therefore suggest *c.*750 BC as the terminal date for the upper fill of Pan II.

B5. Wash above upper fill of Pan II, Trench 3

B5. 1 (2463) (PLATE 33 *c*)

Neck-handled amphora, handle fr. H. (pres.) 14, W. 4.2. Strap handle, curving towards upper attachment. Two panels of diagonal cross, separated by bars. LG.

B5. 2 (2458) (PLATE 33 *c*)

Straight-sided pithos, wall fr. H. (pres.) 7.2, Th. 1.3. Red-brown clay, semi-lustrous brown-black paint. Projecting rim broken off; vertical profile. Paint on rim, three bands below; double circles with dots, enclosing solid rosette. LO. For the shape cf. Coldstream 1973, 38-9, H 36, pl. 12. The solid rosette, within a dotted circular frame, is a favourite motif of the LO Fortetsa painter, identified by J. Boardman in Hood and Boardman 1961, 78-80, where cf. especially 79 no. 5, the aryballos Fortetsa no. 1289, Brock 1957, pl. 99.

B5. 3 (2461) (PLATE 33 *c*)

Large pithos (?), wall fr. H. (pres.) 4.7, Th. 1.8. Orange-brown clay, grey core, large white grits, semi-lustrous brown paint. Guilloche pattern. LO. For the design cf. Coldstream and Sackett 1978, 54, no. 17, pl. 12; also Evans 1895-6, 192-3, fig. 14, from Lato.

B5. 4 (2462) (PLATE 33 *c*)

Straight-sided pithos, wall fr. H. (pres.) 8, Th. 0.8. Pale grey clay. Vertical profile, with upper ridge. Solid paint, two lines, thick billets between lines. LO. See under **B5. 2**.

B5. 5 (2475) (PLATE 33 *c*)

Pithos, wall fr. H. (pres.) 5, Th. 0.6. Broad band with, in added white, triple circles between lines; three lines below. O.

B5. 6 (2462) (PLATE 33 *c*)

Pithos, wall fr. H. (pres.) 4.8, Th. 0.7. Decoration similar to **B5. 5**; perhaps part of the same vessel.

B5. 7 (2478) (FIG. 11; PLATE 33 *c*)

Hydria, rim fr. H. (pres.) 4, D. (rim) *c.*8. Lustrous

black paint. Sharp rim, undercut. Paint on rim, irregular daub on neck; two bands inside. O. For the 'hawk's beak' rim cf. Coldstream 1973, 38, H 24-5, fig. 1; Coldstream *et al.* 2001, 37, fig. 1. 9 *c*.

B5. 8 (2464) (PLATE 33 *d*)

Oinochoe, shoulder fr. L. (pres.) 4.5. Panel of double zigzag; below, lozenge chain (?). LG-EO.

B5. 9 (2463) (PLATE 33 *d*)

Globular pyxis, body fr. H. (pres.) 3.8. Pink-buff clay. Inset lip broken off. Band, two lines, triple circles. Interior coated. O. For the shape cf. Coldstream and Sackett 1978, 54, no. 16, pl. 12.

B5. 10 (2458) (PLATE 33 *d*)

Lid (?), wall fr. L. (pres.) 5.5, Th. 0.7-0.9. Sloping. Solid tongues, outlined. Interior: one band. LO. For the design cf. Coldstream 1973, pl. 15, J 16.

B5. 11 (2458) (FIG. 11; PLATE 33 *d*)

Lid, knob fr. H. (pres.) 1.8, D. 3.5. Inverted conical shape. Fully coated. O.

B5. 12 (2475) (PLATE 33 *d*)

Lekythos, body fr. H. (pres.) 7.5, Th. 0.7. Pale orange-brown clay, cream slip, fugitive black paint. From lower part of slim body. Groups of three and two lines. LG-EO. Cf. Coldstream *et al.* 1981, 145, no. 10, pl. 18.

B5. 13 (2463) (PLATE 34)

Krater, wall fr. H. (pres.) 3.8, Th. 0.8. Cream slip. Part of floral design, hatched centre within five outlines. LO?

B5. 14 (2464) (FIG. 11; PLATE 34)

Lekane, rim fr. H. (pres.) 4, D. (rim) *c.*20. Thickened rim, offset. Band on and under rim, inside and outside; trickle of paint below. LO?

B5. 15 (2464) (PLATE 34)

Cup or skyphos, wall fr. H. (pres.) 2.1. Yellow surface. Quadruple circle enclosing dots. LO.

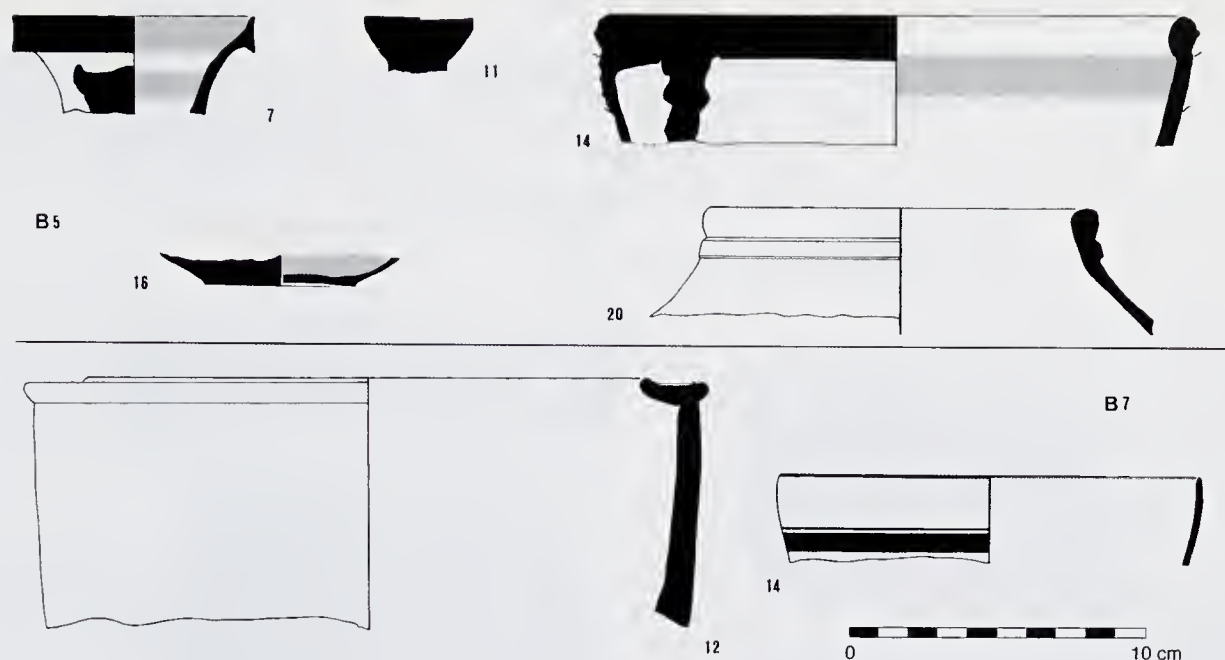


FIG. 11. Selected pottery from Deposits B5 (LO) and B7 (miscellaneous) (1 : 3).

B5. 16 (2463) (FIG. 11; PLATE 34)

Cup, base fr. D. (rim) 4.9. Lustrous black paint. Minimal disc foot. Fully coated but for underside and small circle on floor. LO?

B5. 17 (2470) (PLATE 35)

Cup, rim fr. H. (pres.) 2.8, D. (rim) c.11, Th. 0.15. Thin fabric. Tall oblique lip, offset. Rim partly dipped, inside and outside. Fifth century? Cf. Coldstream *et al.* 2001, 78, fig. 2.1c, from the sanctuary of Demeter.

B5. 18 (2494) (PLATE 34)

Miniature cup, rim, body and handle fr. H. (pres.) 3.8, Th. 0.4. Thick fabric. Strap handle attached

inside rolled rim. Faint traces of paint; band on rim, bars on handle, wavy line level with handle root. LO. A clumsy miniature version of the conical cup **B6. 25**.

B5. 19 (2463) (PLATE 33 d)

Juglet, body fr. H. (pres.) 2.5. Pale orange clay, deep orange slip, matt brown paint. Three thin lines between two bands. Cypriot Black-on-Red II.

B5. 20 (2464) (FIG. 11; PLATE 33 d)

Coarse jar, rim fr. H. (pres.) 4, D. (rim) c.13. Gritty red-brown clay, much mica. Rolled rim, groove and ridge below; bellied body. G. Perhaps from a tripod jar, as Coldstream and Catling 1996, fig. 132, T. 219. 67.

In this scrappy deposit the diagnostic pieces are mainly of the seventh century. The hydria with 'hawk's beak' rim (**B5. 7**) is typical of that period, but neither it nor the sherds with white circles on a dark band (**B5. 5–6**) are closely datable within the local O phases. More especially typical of the LO phase are the circles enclosing dots on the cup **B5. 15** and the pithos **B5. 2**. on the latter piece, the dotted circle frame enclosing a solid rosette is a motif especially favoured by the LO Fortetsa painter, hitherto noted mainly for his small unguent vessels (Hood and Boardman 1961, 79), but now seen to extend his repertoire to larger shapes. The straight-sided pithos (**B5. 2**, **B5. 4**), absent from the cemeteries, is not well documented at Knossos at this time. Perhaps the latest LO piece, perhaps from a lid (**B5. 10**), is decorated with the outlined tongues that may have been inspired by early Corinthian oinochoai imported towards the end of the seventh century (cf. Coldstream and Sackett 1978, 60).

The rim of a side-dipped cup with tall offset rim (**B5. 17**) belongs to a local Classical type, and appears to be an intrusion from an upper level.

B6. Metal-working Quarter, Trenches 1–2

Three successive exterior surfaces with hearth-pits could be distinguished (Levels 1 to 3), topped by two layers of wash (Levels 4–5). These are grouped here in the same deposit since no chronological distinction between them could be observed. The sherds from each layer, however, are presented in separate subsections.

(i) Level 1, lowest surface, with hearth-pits A and B

B6. 1 (103) (PLATE 34)

Pithos (?), wall fr. H. (pres.) 6. White on dark: large triple circle, the innermost thinner than the others, enclosing an irregular quatrefoil. Lines below. LO.

B6. 2 (98. 2) (PLATE 34)

Plump oinochoe, neck and shoulder fr. H. (pres.) 6.5. Low concave neck, mouth curving towards a trefoil lip; broad shoulder. Neck coated. Shoulder: large triple circles, the outermost thickened, empty centres. O. Brock 1957, 154, class E (i); Coldstream and Catling 1996, 434–5, class A.

B6. 3 (103, 108) (PLATE 34)

Plump oinochoe, neck, handle and shoulder fr. H. (pres.) 5. Lustrous dark brown paint. Low concave neck; thick handle, elliptical in section, rising slightly above rim, mouth turning in slightly towards trefoil lip; broad shoulder. Neck and handle coated. Shoulder: in panel, groups of eight bars, vertical and diagonal; lines above and below. EO.

B6. 4 (273) (PLATE 34)

Krater, rim fr. H. (pres.) 4.5, D. (rim) c.34. Lustrous brown paint. Tall vertical lip, with panel of guilloche and vertical bars; lines above and below. EO.

B6. 5 (77.1) (FIG. 12; PLATE 34)

Lekanis, half preserved with full profile. H. 7.6, D. (rim) c.21. Flat rim, short everted lip, carination below; sloping wall, flat base, ribbon handle. Groups of three bars on rim, widely spaced. Light ground.

(ii) Level 2, middle surface, with hearth-pit C

B6. 10 (271) (PLATE 35 b)

Closed vessel, body fr. H. (pres.) 4. Yellow surface. Set of concentric circles, the outermost thickened. To left, diagonal tangent with dots. O.

B6. 11 (270) (PLATE 35 b)

Bell-krater, rim and body frs., probably from the same vessel. Sharply everted lip, with carination below. Lip coated, with two lines in added white; three lines below. Body fr.: set of five concentric circles. Spatter inside. A M-LPG type, but the added white suggests an EO imitation.

Exterior: band on lower body and at base; concentric bands underneath. Interior similar. Handle unpainted. LO. On this shape see Coldstream *et al.* 2001, 59, fig. 1. 21 c; examples with painted decoration are not known before LO.

B6. 6 (108) (PLATE 34)

Cup, two wall frs. H. (pres.) 2.6. Dark ground. Metope containing diagonal cross, stuffed with triangles. LG–EO. Cf. Coldstream 1972, 83–4, D 32, pl. 21, from Venizeleion well 1; Davaras 1968, 138, A 46, pl. 40 b, from Atsalenio.

B6. 7 (98. 2) (FIG. 12; PLATE 35 a)

Cup, one-third preserved, rim to near base. H. (pres.) 10, D. (rim) c.13, Th. 0.2. Thin-walled. Concave lip offset from bellied body; fully coated. LG–EO. Coldstream and Catling 1996, 387, class D (iii) (a).

B6. 8 (98. 2) (FIG. 12)

Cup, base fr. Lustrous black paint. Conical foot, flat resting surface. Exterior coated. Perhaps from a plain version of the LO high-footed cup, as Coldstream and Catling 1996, pl. 111, T. 56. 19; 458, class D.

B6. 9 (273) (PLATE 34 b)

Cooking jug, shoulder fr. L. 3. Pale brown clay, hard and gritty, many airholes; large brown inclusions. Zone of four incised grooves, more at upper break. O. Coldstream *et al.* 2001 63, fig. 1.23 d.

B6. 12 (272) (PLATE 35 b)

Krater, wall fr. H. (pres.) 27, Th. 0.7. Pink-brown clay, red-brown paint. Zone of latticed lozenges between lines. LG–EO.

B6. 13 (272) (PLATE 35 b)

Lekanis, wall fr. H. (pres.) 3, Th. 0.5. Pale pink clay, lustrous red-brown paint. Vertical wall. Exterior: part of guilloche. Interior: spaced bands. LO.

B6. 14 (270) (PLATE 35 b)

Skyphos, rim fr. H. (pres.) 2.5, D. (rim) c.16. Dull brown paint, lustrous inside. High concave lip, not



FIG. 12. Selected pottery from Deposit B6 (LO) (1 : 3).

offset. Lines: trace of body motif, illegible. Interior coated but for reserved zone below rim with groups of bars. LG.

B6. 15 (271) (PLATE 35 *b*)

Skyphos, rim fr. H. (pres.) 1.9, D. (rim) c.12. Lustrous brown-black paint. Low vertical lip, not

offset. Lines: trace of body zone with vertical bars. Interior coated but for reserved line below rim. EO.

B6. 16 (269) (FIG. 12; PLATE 35 *c*)

Cup, base fr. H. (pres.) 4.6, D. (base) c.5.2. Lustrous black paint. Bellied body, flat base. Fully coated, the paint overlapping slightly below the base. LG–EO.

(iii) Level 3, upper surface, with hearth-pit D

B6. 17 (265) (PLATE 35 *d*)

Closed vessel, body fr. H. (pres.) 4. Pink-brown clay, grey core, lustrous black paint. Dark ground, one reserved line, one in added white. O.

B6. 18 (267) (PLATE 35 *d*)

Domed lid (?), two frs. H. (pres.) of larger 6. Orange-brown clay, grey core, yellow surface, dull black paint. Handmade. (a): bird protome as finial for a steeply sloping lid, with an irregular vertical groove; diagonal bands of paint on shoulder; (b): non-joining fr. with similar decoration, apparently from the other side. O.

B6. 19 (267) (PLATE 35 *d*)

Oinochoe (?), shoulder fr. H. (pres.) 4. Lustrous black paint. Set of two concentric circles, widely spaced. O. Cf. Brock 1957, 3.

B6. 20 (265) (PLATE 35 *d*)

Miniature amphoriskos, body fr. H. (pres.) 4.7, Th. 0.4. From shoulder to near base. Globular body, neck apparently not offset; root of one handle. Dark ground with reserved zone on shoulder. Daub at left break suggests a second handle. O?

B6. 21 (267) (PLATE 35 *d*)

Bell-krater, wall fr. H. (pres.) 3.5. From near rim; profile slightly concave. Four verticals, wavy fringe to left. Interior: band at upper break, spatter below. EPG. Cf. Coldstream 1963, 37, ii. 3, fig. 7, pl. 11 *b*.

B6. 22 (267) (PLATE 35 *d*)

Krater, two wall frs. L. of larger 7.5. Dark ground with groups of lines in added white. O.

B6. 23 (265) (FIG. 12; PLATE 35 *c*)

Lekanis, base fr. H. (pres., 0.34, D. (base) c.15, Th. of base 1.4. Straight wall sloping slightly outwards, flat base. Dark ground with added white. Exterior: three lines near base; underneath, set of three concentric circles at centre, two more circular bands outside. Interior fully coated, with white lines and concentric circles similarly placed. LO. On this shape see Coldstream *et al.* 2001, 59.

B6. 24 (266) (FIG. 12; PLATE 35 *d*)

Skyphos (?), wall fr. H. (pres.) 3. Pink-brown clay, yellow surface; black paint, lustrous inside, faded outside. Between verticals, schematic lotus flower, a latticed triangle with spiral volutes and a triple-line stem. LO.

(iv) Level 4, wash above metal-working

B6. 27 (262) (PLATE 36 *a*)

Amphora (?), wall fr. H. (pres.) 5.2. Panel of irregularly spaced diagonals, with transverse hatching across three lines; horizontal lines below, bars to left, beginning of a second panel at left break. PGB-EG. Perhaps part of a triangle stack.

B6. 28 (263) (PLATE 36 *a*)

Oinochoe (?), neck fr. H. (pres.) 3.4, Th. 0.2. Concave neck; single zigzag between lines. LG-EO.

B6. 29 (262) (PLATE 36 *a*)

Hydria, wall fr. H. (pres.) 7.5. Deep orange clay. From belly: ends of bracket ornament below three bands. LG-EO.

(v) Level 5, further wash above Level 4

B6. 33 (260) (PLATE 36 *c*)

Hydria, handle fr. H. (pres.) 10.5. Vertical handle, round in section, with lower attachment to shoulder. Wavy vertical band. O.

B6. 34 (260) (PLATE 36 *c*)

Bell-krater, wall fr. H. (pres.) 4.7. Semi-lustrous brown paint. From near rim; ridge near upper break. Small set of circles; spatter inside. EO?

B6. 25 (265) (FIG. 12; PLATE 36 *b*)

Small conical cup, one-third preserved with full profile. H. 4, D. (rim) c.5.8. Fine orange clay, unpainted. Minimal everted lip, groove below; conical body, flat base, strap handle. EO. On this type see Coldstream and Macdonald, 239, and Coldstream *et al.* 2001 57, fig. 1. 19 *n*.

B6. 26 (267) (FIG. 12; PLATE 36 *b*)

Cup, rim and handle fr. H. (pres.) 7.5, D. (rim) c.12, Th. 0.2. Fine orange-brown clay, mottled brown-black paint. Oblique lip passing gently into bellied body. Fully coated but for two reserved lines inside rim. LG-EO.

B6. 30 (263) (PLATE 36 *a*)

Krater, wall fr. H. (pres.) 6. Orange clay, lustrous red-brown paint. Broad band bordered above and below by white stripes, with zone of white double circles; lines above and below. O.

B6. 31 (263) (PLATE 36 *a*)

Cooking jug, wall fr. H. (pres.) 3.5. Gritty and micaceous red-brown clay, unpainted. Sets of incised grooves, oblique above horizontal. O.

B6. 32 (262) (PLATE 36 *a*)

Skyphos, wall fr. H. (pres.) 3. Fine orange-buff clay, a few brown grits; lustrous black paint, thinning to brown for decoration. Bellied body with panel of vertical chevrons, lines above and below. Attic MG II.

B6. 35 (260) (PLATE 36 *c*)

Krater, wall fr. H. (pres.) 3. Multiple zigzags. M-LG.

B6. 36 (260) (PLATE 36 *c*)

Krater, wall fr. H. (pres.) 5.5. Lustrous brown-black paint. Triple circles, band above, band and lines below. O.

B6. 37 (258, 260) (PLATE 36 *c*)

Lekanis, base fr. L. (pres.) 8.3. Lustrous brown-black paint. Flat base. Interior: thick and thin circles. Under base: several sets of quadruple circles. LO.

In the east sector of the excavations, no chronological distinction could be observed between five thin strata, two of wash above three containing hearth-pits for metal-work. The general impression is of pottery extending well down into the seventh century, with some earlier residual material.

Several shapes invite special comment. Unique is the fragmentary domed lid, **B6. 18**,

crowned by a bird protome as its handle; its nearest relations are two LO wheelmade lids for urns in the cemeteries, with protome handles modelled as a goat and a ram.²⁹ The oinochoai are mainly of a plump O class (**B6. 3, 19**), well-represented in the cemeteries (Coldstream and Catling 1996, 434, class A). Of kraters, very rare in the cemeteries after LG, there is no lack here. **B6. 22, 30, 36** come from a common O type, abundant also in other domestic deposits:³⁰ dark-ground, decorated with rows of concentric circles and much use of white paint. Another O shape virtually absent from the cemeteries is the fine-walled carinated cup (**B6. 25**), unpainted, and perhaps imitating a metallic (gold?) model (Coldstream and Macdonald 1997, 239; Coldstream *et al.* 2001, 57 and fig. 1. 19 n).

In **B6. 5** we have the first recorded full profile of another almost exclusively domestic shape, the LO lekanis with painted decoration. Evolving from a larger prototype in coarse fabric, this shape does not enter the repertoire of fine painted pottery before the LO phase (Coldstream *et al.* 2001, 59). Easily recognized in fragments through its broad, thick and flat base, its straight wall, and its ornament on both surfaces, the painted lekanis may serve as a useful 'type fossil' for domestic deposits of this period. Its presence in all three of the metal-working strata (**B6. 13, 23**), as well as in the uppermost wash layer (**B6. 37**), suggests that the activity of metal-workers in this area was confined to a brief phase in the mid-seventh century.

B7. Unstratified sherds, of intrinsic interest

B7. 1 (2699) (PLATE 37 a)

Amphora, neck fr. H. (pres.) 7.5, Th. 1.4. Vertical profile. Part of meander (?), four lines, horizontal Ss, more lines. Trace of burning at upper break. M-LG. For the Ss cf. the M/LG pithos, Payne 1927-8, 235-6, no. 24, fig. 6.

B7. 2 (2699) (PLATE 37 c)

Pithos, wall fr. H. (pres.) 4, Th. 0.4. Metope containing diagonal cross, with chevrons and dotted lozenges in each quarter. EO. Cf. Coldstream and Catling 1996, pl. 120, T. 75. 72.

B7. 3 (2238) (PLATE 37 b)

Giant oinochoe, neck fr. H. (pres.) 4, Th. 0.9, inner D. 1.8. from base of vertical neck. Three running spirals, line at lower break. PGB-EG. Cf. Brock 1957, pl. 29, no. 500. On these tall, slow-pouring vessels see Coldstream and Catling 1996, 346, class D.

B7. 4 (2710) (PLATE 37 a)

Tripod stand, fr. H. (pres.) 4.3. Red-brown clay, grey core, cream wash. Fugitive black paint. Upper ring broken off, with projecting ridge below. Part of one foot, left edge smoothed, breaks to right and below. Opposed groups of diagonals, solid paint in upper left corner and under ridge; three verticals to left,

bars at lower break. SM/EPG. Cf. Sackett 1992, 63, pl. 47 c. 7; Coldstream and Macdonald 1997, 230, X 2, pl. 47 = BSA 31 (1930-1), 94, fig. 24. 8. A complete miniature example appears to be a clay copy of the Cypriot bronze rod tripod: Kanta and Karetsoy 1998, 161 fig. 3.

B7. 5 (2512) (PLATE 37 a)

Large bell-krater (?), wall fr. H. 9.2, Th. 1.4. Red-brown clay, grey core, white and brown grits, dull black paint. Concave profile. Dark ground. Reserved line near upper break; below, reserved areas with oblique and vertical lines. No paint inside. SM.

B7. 6 (2512) (PLATE 37 b)

Small bell-krater, wall fr. H. 4.2, Th. 0.4. Dull red-brown paint. Three verticals with double-arc fringe; to right, three diagonal lines. Interior coated. SM.

B7. 7 (2238) (PLATE 37 b)

Lekanis, base fr. L. (pres.) 7, Th. 0.8. Orange-brown clay, lustrous brown-black paint. Flat base. Floor: spaced bands. Underside: triple circles, lines, band, lines. LO.

B7. 8 (1501) (PLATE 37 c)

Kotyle, rim fr. H. (pres.) 3.4, D. (rim) c.13. Hemispherical shape. Two lines, row of triple circles,

²⁹ Goat: Brock 1957, 109, no. 1267, pls. 84 and 160. Ram: Coldstream and Catling 1996, 156, T. 107. 124, pl. 158.

³⁰ See also Coldstream and Macdonald 1997, 238. The scarcity of G and O kraters in the cemeteries has led to a

theory that the Knossians of those periods rarely, if at all, indulged in symposia: Whitley 2004. This theory, taking no account of the abundance of kraters in contemporary domestic deposits, should be viewed with caution.

more lines. Interior coated but for reserved line under rim. LG. Cf. Hutchinson and Boardman 1954, pl. 26, no. 76. On this shape see Coldstream and Catling 1996, 384.

B7. 9 (2691) (PLATE 37 *c*)

Kotyle, rim fr. H. (pres.) 3.7, D. (rim) *c.*14. As **B7. 8**, but the inner circles in one set have coalesced. LG.

B7. 10 (2699) (PLATE 37 *b*)

Cup, base fr. D. (base) *c.*4, Th. 0.6. Lustrous black paint. Disc foot. Fully coated. Incised decoration on the floor: central rosette surrounded by broken spirals. LO?

B7. 11 (2354) (PLATE 37 *a*)

Coarse bell-krater (?), wall fr. H. (pres.) 7, Th. 1.1. Gritty dark brown clay, many white and black inclusions, much mica. Slightly concave profile. Set of six concentric circles in white paint. Perhaps PGB, a phase when white circle decoration was sometimes applied to large vessels in coarse micaceous fabric; cf. the straight-sided pithoi, Brock 1957, 36, no. 343, pl. 22 and Coldstream and Catling 1996, 234–5, T. 283, 52, pl. 215.

B7. 12 (1395) (FIG. 11; PLATE 37 *c*)

Straight-sided pithos (?), rim fr. H. (pres.) 8.3, D. (rim) (inner) *c.*19, Th. 1.1. Orange-brown clay, yellow surface. Semi-lustrous brown-black paint. Inset concave lip, projecting outer edge; vertical wall. Band under rim. Three verticals to left; double

bracket motif enclosing a rough quatrefoil. LO? Perhaps an import from southern Crete where, in contrast to Knossos, the straight-sided pithos still remained in the local O repertoire.

B7. 13 (2510) (PLATE 37 *a*)

Oinochoe (?), shoulder fr. H. (pres.) 4.5, Th. 0.5–0.7. Buff clay, white and brown grits, much mica, fugitive black paint. Set of ten concentric circles above three lines. Cycladic LPG.

B7. 14 (2410) (FIG. 11; PLATE 37 *c*)

Kotyle, rim fr. H. (pres.) 3.2, D. (rim) 14, Th. 0.25. Fine yellow clay; black paint, lustrous but fugitive. Deep shape. Line on rim; band below, with white stripe. Early Protocorinthian.

B7. 15 (1241) (PLATE 37 *c*)

Oinochoe (?), wall fr. H. (pres.) 4, Th. 0.45. Orange-brown clay, white grits; deep orange slip, semi-lustrous black paint. Two lines, band. Cypriot Black-on-Red.

B7. 16 (2674) (PLATE 37 *c*)

Bull figurine, fr. L. (pres.) 4, D. (body) (max.) 2.4. Orange-brown clay, white grits, dull red-brown paint. Rear half of body, tail and hind legs broken off. Cylindrical body, elliptical in section; hole, D. 0.7, pierced through rump. Horizontal stripes on each flank and on back, solid paint on rump. SM-PG? Cf.

B1. 32–3.

THE SMALL FINDS (BY D. EVELY)

The presentation is in the same deposit order as for the pottery (see above). Each item is introduced by its material, and then identification; condition, shape, and measurements follow; general comments come last. The number by which an object is identified is unique to the excavation: the zambil number comes first, and after the point is the running number of the items associated with that zambil.

All measurements are in cm; weights in g.

CATALOGUE

B1. Pan I (SM/EPG), trench 3, western extension

2598. 3

Stone tool, pounder; black, crystalline limestone; water-worn. 20% or so of perhaps spherical object. D. 8.8 estimated, H. 6.7, Wt. 189 g. Surface shows all-over bruising damage and later flaking (at time of breaking?).

2590. 3 (FIG. 13; PLATE 38)

Stone tool, pounder. Pale grey, crystalline limestone; water-worn. Complete; ovoid. D. at larger end 4.3–

4.8, H. 5, Wt. 155 g. Angles and smaller end show bruising and pounding damage; other untouched parts with very low polish.

2598. 6 (FIG. 13; PLATE 38)

Stone tool, whetstone. Pale grey, crystalline limestone. Complete as is; flaking at one edge; tabular. L. 6.1, W. 2.4; Th. 1.1, Wt. 37 g. Quite neat, but not much worked. One main surface shows signs of use in broad, shallow groove/hollow from

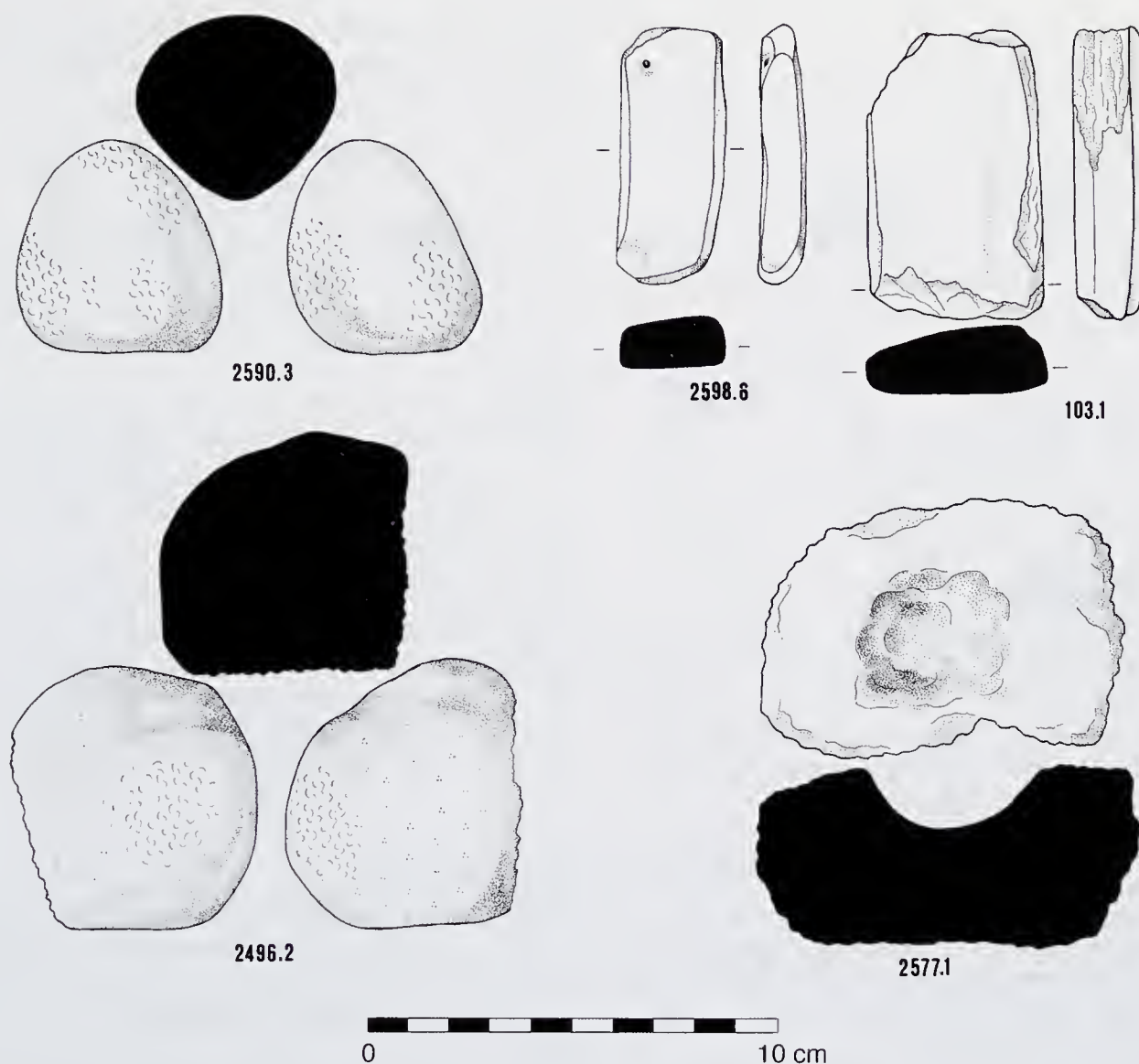


FIG. 13. Stone tools and a 'pivot' (1 : 2).

stropping action—has very low to low polish. D. (stringhole). 0.2–0.3 across; set in a corner.

2590. 2

Stone ?tool, whetstone/polisher; mid green, marble. Edge fragment; flat plaque. L. (pres.) 2.8, W. (pres.) 1.2; Th. 0.75, Wt. 5 g. Deliberately shaped: 2 main faces, one with very light polish, other comparable with occasional scratches; edge rounded, with zones of oblique scratches where shaped. Could be veneer or inlay.

2577. 1 (FIG. 13; PLATE 38)

Stone ?pivot. Pale off-white, limestone/ kouskouras. Perhaps complete, bar a fragment or two lost from one long side. Irregular surface owing to porous/flaky texture. L. 8.8, W. 5.9; Th. 4.1, Wt.

224g. Could have been roughly knocked to vague rectangular form—one clear face has definite hollow, subcircular (3 × 3.5; deep 1.2). This has no signs of wear, and so the purpose of this item is quite obscure—unless it is a rest for something to be stood in.

2589. 1 (FIG. 14; PLATE 29 b, c)

Stone 'button'. Black of schistoid character. Basal portion only (sheared off naturally), could have been reused. D. (base) 2–1.7, H. 0.25–0.4, Wt. 4 g. Base may show saw marks overlain by more random scratches; top split away; edge has facets showing some medium oblique abrasion from shaping. D. (stringhole). 0.35.

2598. 7 (FIG. 14; PLATE 39)

Clay 'rubber'. Pale orange, medium-fine, with inclusions of ?phyllite. Complete as is, roughly

square from body. L. 3.2, W. 3.2; Th. 0.8, Wt. 12 g. Rounded, eroded edges; water-worn; no clear evidence of active use.

*B2. Pan II, disturbed lower fill (PGB/EG), Trench 3***2581. 2** (PLATE 38)

Stone tool, pounder. Pale grey to off-white, crystalline limestone; water-worn. Half; split on long axis, once spherical. L. (pres.) 6.9, W. 6.3; Th. (pres.) 3.75, Wt. 214 g. Each end has zone of pounding and grinding-crushing damage, spreading along side margins.

2511. 2

Stone ?tool, ?pounder; pale brown to off-white, crystalline limestone; water-worn. Half; split on long axis; once ovoid. L. (pres.) 9.2, W. 5.9; Th. (pres.) 3.1, Wt. 227 g.

2501. 1

Clay loomweight; orange-brown, semi-coarse (small inclusions). Part of one half; once spherical. D. 7.6, H. (pres.) 5.6, W. (pres.) 6.2, Wt. 72 g. A superficial groove is a mere scratch, and thus non-functional. Stringhole c.1 across, splash of orange paint inside.

2585. 1

Clay 'rubber'; pale orange, fine. Complete in itself, bar one break; sub-rectangular. L. 3.7, W. 2.9; Th. 0.8, Wt. 10 g. Rounded, eroded edges; water-worn; no clear evidence of active use.

2498. 3

Clay 'rubber'; buff, medium-fine, with black inclusions. Complete in itself, rectangular and curved in profile; body sherd. L. 4.5, W. 2.5; Th. 0.5–0.7, Wt. 13 g. Rounded, eroded edges; water-worn; no clear evidence of active use.

2581. 3

Clay 'rubber'; pale orange, hints of brown paint. Complete as is, waisted disc; from junction of foot and body. D. 4 and 3.6, H. 1.85, Wt. 18 g. Rounded, eroded edges; water-worn; no clear evidence of active use. Cylinder impressed on underside in fashioning of foot (1.2 d., wall 0.2 thick).

*B3. Hill-wash (MG), Trenches 2–3***1522. 1** (FIG. 14; PLATE 39)

Clay 'rubber'. Red-orange, coarse. Complete in itself, circular. D. 2.4–2.6; Th. 1, Wt. 11 g. Not so eroded as are others of this group of finds, and clearly worked to shape. No signs of active use.

1522. 2 (FIG. 14; PLATE 39)

Clay 'rubber'. Pale orange, semi-fine, with some ?phyllite inclusions. Complete in itself, bar clean break on one side, roughly rectangular. H. 2.5, W. (pres.) 2.2; Th. 0.6, Wt. 4 g. Rounded, eroded edges; water-worn; no clear evidence of active use.

1518. 1 (PLATE 39)

Clay 'rubber'. Pale-mid orange-brown; fine. Complete in itself; handle fragment. L. 6, W. 4.6; Th. 0.7–1.7, Wt. 45 g. Rounded, eroded edges; water-worn; no clear evidence of active use.

1518. 2

Clay 'rubber'; pale orange, semi-fine, with black inclusions. Complete in itself, ?ovoid. L. (pres.) 2.4, W. 2; Th. 0.3, Wt. 1.5 g. Rounded, eroded edges; water-worn; no clear evidence of active use.

From trench 3, Deposit 3 (MG), but with Classical intrusions:

2235. 2

Clay 'rubber'; pale-mid orange, fine. Much fractured off; once circular, from base of vase. D. 4.5, H. 1.5; Th. 0.5–0.9, Wt. 12 g. Rounded, eroded edges; water-worn; no clear evidence of active use.

2235. 3

Clay 'rubber'; mid orange-red, fine. Waisted cylinder, a bit battered fractured. D. 5.3, 4.3, H. 2.9, Wt. 54 g.

Rounded, eroded edges where not flaked; water-worn; no clear evidence of active use.

1295. 2 (FIG. 14)

Clay 'rubber'. Pale orange, medium-fine, with inclusions of ?phyllite. Complete as is, roughly rectangular from body. L. 3.6, W. 2; Th. 0.8, Wt. 7 g. Rounded, eroded edges; water-worn; no clear evidence of active use.

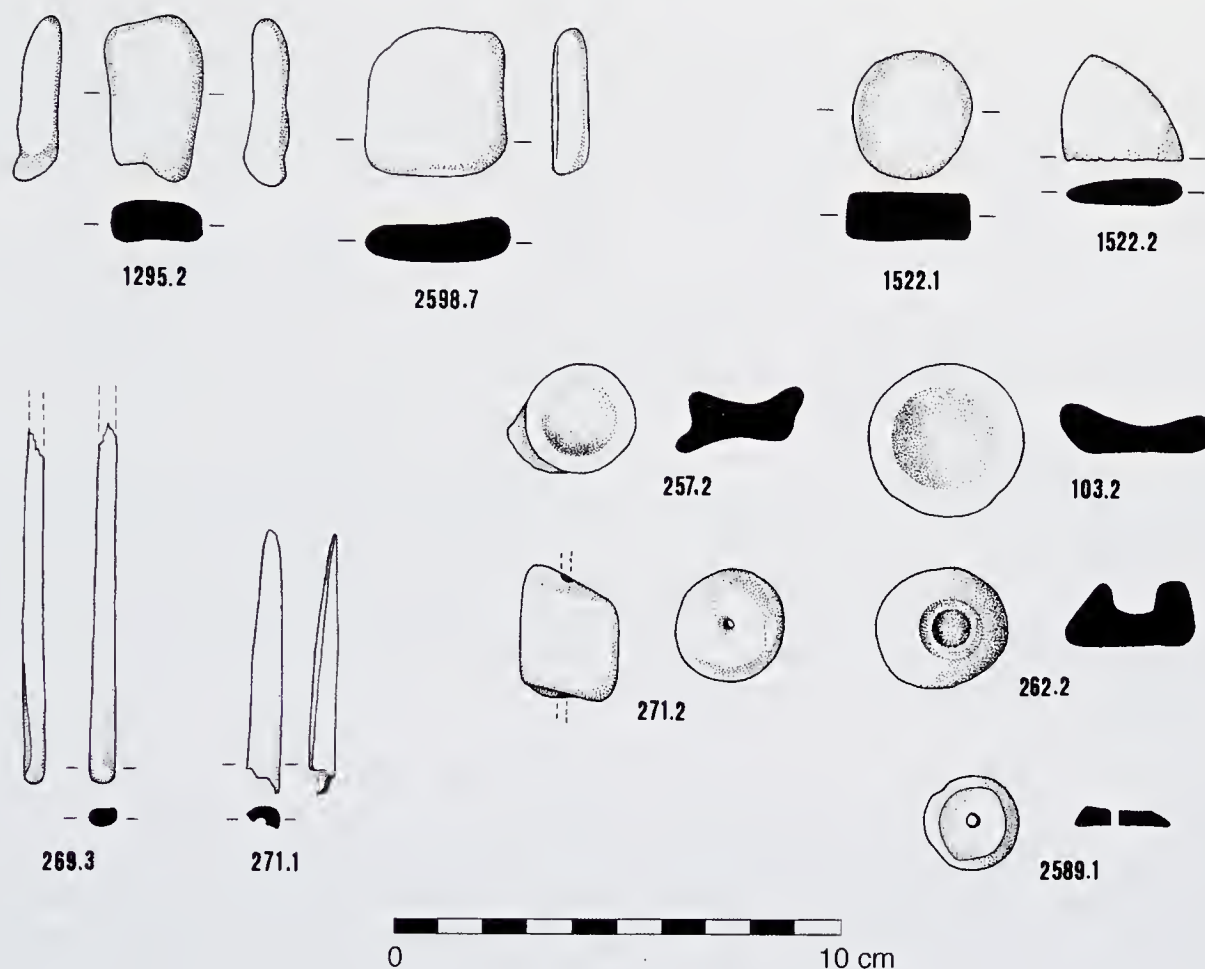


FIG. 14. Clay, bone and a stone object (1 : 2).

*B4. Pan II, upper fill (MG), Trench 3***2496. 2** (FIG. 13; PLATE 38)

Stone tool, pounder/grinder-crusher. Dark grey, ?dolomite; water-worn. Once near spherical, now lacking two segments flaked away. D. 7, H. 6.5, Wt. 380 g. Two grades of all-over bruising: more smaller and close; fewer and larger damage; hints of faceting; two flatter planes (top and bottom) are smooth and lack any damage.

2496. 3

Stone ?tool, ?pounder; pale grey to off-white, limestone; water-worn. About half-split on long axis. L. (pres.) 4.8, W. (pres.) 4.2; Th. 2.7, Wt. 60 g.

Natural pebble with a hint of bruising possibly at one end.

And nearby from trench 3, contaminated surface layer west of Pit II:

2510. 1

Stone tool, rubber/polisher; dark blue-black serpentinite. Irregular chunk, roughly rectangular; half lost, split down main axis. L. 5.8, W. (pres.) 2.6, H. (pres.) 3.4, Wt. 56 g. All-over medium polish; irregular profile, with one flatter face with across axis fine-medium abrasion scratches. Perhaps the angles here may carry limited pounding damage.

*Deposit B6. Metal-working Quarter (LO), Trenches 1-2***257. 2** (FIG. 14; PLATE 39)

Clay 'rubber'. Pale brown; semi-fine. Fragment of vase, from junction of foot and body. Complete in

itself. D. 2.4, (waist) 2.2, H. 1.2, Wt. 7 g. Rounded, eroded edges; water-worn; no clear evidence of active use. From Trench 1/2, upper wash (Level 5).

262. 2 (FIG. 14; PLATE 39)

Clay 'support'. Pale brown; semi-fine, small dark inclusions. Complete in itself: deliberately made or fragment of vase? D. 2.7–2.9, H. 1.4, Wt. 8 g. Hollow impressed, very cylindrical, 1.1 across. Rounded, eroded edges; water-worn; no clear evidence of active use. From Trench 1/2, lower wash (Level 4).

271. 2 (FIG. 14; PLATE 39)

Clay cylinder. Pale buff. Complete as is; probably from kylix stem. D. 2.4, H. (pres.) 2.5, Wt. 15 g. Hole in stem 0.2–0.3 across. Rounded, eroded edges; water-worn; no clear evidence of active use. From Trench 2, level 2, middle surface.

271. 1 (FIG. 14; PLATE 39)

Bone point. Off-white. Splintered ends missing from shaft. L. (pres.) 5.6, W. 0.75; Th. 0.25, Wt. 2 g. Probably from long bone; low polish. Tapering to point, probably relatively broad and blunt rather than needle-like. Fine enough abrasion scratches along main axis, from shaping rather than use. From Trench 2, level 2, middle surface.

269. 3 (FIG. 14; PLATE 39)

Bone? pin. Pale brown, off-white. Tip lost. L. (pres.) 7.7; 0.6 × 0.3 tapering to D. 0.4, Wt. 2 g. Good polish all over; plain head a rounded rectangle in section, becoming circular. From Trench 2, level 2, middle surface.

103. 2 (FIG. 14)

Clay 'rubber'. Orange, occasional inclusions. Complete as is; ?from base of bowl. D. 3.3, H. 0.9, Wt. 10 g. Dished form. Rounded, eroded edges; water-worn; no clear evidence of active use. From Trench 1/2, level 1, lowest surface.

103. 1 (FIG. 13; PLATE 38)

Stone tool, whetstone/polisher. Black, foliated emery. Slab, with rough-broken ends; one corner perhaps lost. L. 6.8, W. 4.1–4.25; Th. 1.6, Wt. 88 g. Sides and faces worked flat and smooth; ends ragged with natural break. From Trench 1, level 1, lowest surface.

DISCUSSION

Other than the pit/pan linings (see the section on the stratigraphy above), the small finds associated with these layers are both paltry in number (29) and widely scattered throughout a range of contexts from the tenth to the seventh centuries BC. This account will first examine them as groups, each in its stratigraphical context, to see if they shed any light on what was taking place. Then they will be reviewed by object group, largely working across chronological distinctions. No startling insights should be expected, given both the paucity of objects and the relatively scant and disturbed stratigraphical history.

By context

The earliest milieu extant is Pan I (designated Deposit B1, dated to SM–EPG, down to c.950 BC). In this were located six stone objects and one of clay. Of the first set, four were tools: pounders (**2598. 3**, **2590. 3**), whetstones and similar (**2598. 6**, **2590. 2**); with them were part of a stone 'conical button' (**2589. 1**) and a possible 'pivot' (**2577. 1**). The clay piece is a 'rubber': basically a heavily eroded, rounded and smoothed fragment of pottery (**2598. 7**).

Replacing this is Pan II. Capable of being divided into two sub-phases, it yielded a body of finds comparable to its forerunner. With its first manifestation (Deposit B2, PGB/EG, to 800 BC) were associated two stone tools—both pounders (**2581. 2**, **2511. 2**), three clay 'rubbers' (**2581. 3**, **2498. 3**, **2585. 1**) and part of a spherical loomweight from the Bronze Age (**2501. 1**). After revamping (Deposit B4, MG, to 750 BC), two more stone tools used in pounding (and other) actions were recovered (**2469. 2–3**). A mixed surface to the west of this Pan yielded another stone tool, a rubber-polisher (**2510. 1**).

The hill-wash over the centre of the site (Deposit B3, MG, to 775 BC) is derived from layers set down within the lifetime of the later phase/just after Pit II. The only recorded small finds are the clay 'rubbers', of which seven are known (**1522. 1–2**, **1518. 1–2**; **2235. 2–3**, **1295. 2**).

In the soils with the last three are intrusive Classical sherds, possibly as a result of the collapse of an earlier terrace or other kind of wall during the Classical period.

The final context comprises exterior surfaces with hearth-pits and traces of iron-working (Deposit B6, LO, *c.*650 BC). Finds were assigned to two surfaces and, again, an overlying hill-wash. Hence, from the earliest surface, came a single stone tool, a whetstone (**103. 1**) and a clay 'rubber' (**103. 2**); with two bone points (**269. 3**, **271. 1**) and a clay cylinder (**271. 2**) on that above; two more 'rubbers' (**257. 2**, **262. 2**) were collected from the hill-wash.

From all this, it seems clear that irrespective of what sort of soil type and source, of whatever temporal horizon and of whatever apparent function the space was put to, yet the same range of finds in much the same degree of frequency will turn up. No individual find or group of same especially illuminates the context in which it was found. Some of them definitely originated in an earlier Bronze Age milieu: the stone conical 'button', **2589. 1**, from Pan I and the clay spherical loomweight fragment, **2501. 1**, from Pan II. Further there is no reason why all of the stone and bone tools could not have done so too. In short, no internal evidence exists to safely attach a small find to the date of the soil's deposition; and so the finds do not necessarily shed any light on the activities taking place. But equally, and given the basic nature of the same finds, almost each and every one might have done so. An unfortunate impasse.

By object-type

Of the ten stone tools, or potential tools, most are in a fragmentary condition: only **2590. 3**, and perhaps **2598. 6** and **103. 1** are complete. This fact does not bode well for the remainder to have been in use at the time of deposition. Most are pounders (five: **2598. 3**, **2590. 3**, **2496. 3**, **2581. 2**, **2511. 2**), of typical size and weight; the preference for using crystalline limestone/marble is much as might be expected for Knossos.³¹ The single poulder/grinder-crusher (**2496. 2**) is again typical in form, size and material.³² Of the whetstones (three: **2598. 1**, **103. 1**, **2590. 2**), all display degrees of shaping to achieve a tabular/slab form, some very neatly (thus, **2598. 6** has a hole at a corner to assist hanging or such) (Popham 1984, 226–7). The least so worked (**103. 1**) is of interest in another way, as being of some form of emery. A further singleton (**2510. 1**) is perhaps some sort of polisher: of serpentinite, its material is not of itself abrasive, but it can offer a vehicle for a finer grade of polishing agent, or work unaided on more yielding substances (Popham 1984, 224; though none are that close in form).

All the above could easily be Bronze Age tools: indeed the use of the word 'typical' above refers to comparable items from this broad and earlier time span. At the present so little is published from Knossos of securely dated and extensive settlement contexts from the EIA that any conclusions beyond the above are premature.³³ The same applies, and even more so, to the conical 'button' (**2589. 1**; FIG. 14) of an unknown black stone: a certain throw-up or hang-over from the LM II–III periods (Popham 1984, 239). The final catalogued item of stone

³¹ For the stone tools, parallels are taken from the Unexplored Mansion, as offering the fullest range of later LM date as yet published from Knossos. More recent reports such as the South House and the Little Palace contain too few pieces and from too uncertain contexts to be considered here. For pounders and grinders, and the preference for limestone/marble at Knossos: Popham 1984, 225.

³² As n. 31.

³³ The same doleful conclusions were reached by Sackett and Cocking in their survey of similar numbers and types of finds from PG to EO, recovered in the excavation of the layers above the Unexplored Mansion: Sackett 1992, 391–2.

(**2577. 1**; FIG. 13; PLATE 38) is a rather irregular lump of poor-quality limestone, with a hollow opened on one face: lacking any signs of rotary wear on its interior, it cannot be securely identified as a pivot—or at least a used one.³⁴ Therefore a possible use as a rest for some wooden item is proposed: its very basic simplicity allows no closer dating.

Of the clay items (16), 13 belong to a mysterious group termed here ‘rubbers’. Of the other three, one can be at once dismissed as of Bronze Age date: the fragment of a spherical loomweight (**2501. 1**) (Popham 1984, 247–9). Another (**271. 2**) is suspiciously similar to a very worn segment of a kylix stem—broken pieces of which were certainly recycled in the Bronze Age: this too might be a wanderer (Popham 1984, 250; though here the kylix stems are cut thinner as a rule). The final object is small and modelled (**262. 2**): resembling a modern ferrule from a cane tip, it might have played some supporting role. Comparable pieces turn up elsewhere, again in the Bronze Age, but never in any way that suggests a specific function (Evely 2003, 191 and fig. 7. 9. 188 and 189; from the South House at Knossos).

The thirteen ‘rubbers’ are a conundrum. They turn up in every context—most notably in the MG hill-wash of Deposit B3, where seven were catalogued, without any other accompanying objects. Such a distribution implies that they were a relatively common and constant part of any everyday working environment at any time. This conclusion might prompt another: that they played a common rather than a specialized role. It would be worth investigating whether their presence may be observed in either the earlier Bronze Age or the later historical phases.

Their common features, other than that all derive from pot-sherds, are a relatively small size and an all-over very eroded (and thence smoothed and rounded) surface condition. The comprehensive and equal wear on every bit of a ‘rubber’ should surely mean it has not derived from any work-damage it had encountered. Rather the effect closely resembles that seen on glass fragments tumbled to-and-fro by the waves at the sea’s fringes. If this observation has any bearing on these ceramic pieces, then it would mean that their condition was the result of water-action, and that they had probably been collected from ravine, stream or sea-shore. Such retrieval could have been accidental (e.g. the collection of sands or smaller stones for a building process, like a floor packing). But it could too have been a deliberate action. The question remains—for what purpose? Their surface texture would probably be the deciding feature—a tool designed for a light form of polishing or smoothing?

Finally are catalogued two bone items: **271. 1** and **269. 3** (FIG. 14; PLATE 39), both broken and perhaps discards. Both are from the LO metal-working area (Deposit B6), on what is termed Surface 2. They are quite characteristic and can be paralleled at any time in the prehistoric or historic past.³⁵ The blunt end of **271. 1** and fairly sturdy proportions of **269. 3** argue that neither were sharp-pointed needles.

CONCLUSIONS

This brief discussion serves only to underline the remarks made in the stratigraphic section as to the considerable presence of various hill-washes, and the relative rarity of any extensive and so understandable horizons. Given the lack of certainty as to the use of the Pans of SM–MG

³⁴ Though of a different material, a cobble from the Unexplored Mansion has a broad similarity to the LPN piece: Popham 1984, 227, H220, pl. 210 c.

³⁵ Close parallels are somewhat hard to find. Those visible in Popham 1984, pl. 222. 6, from post-LM II contexts will do service here.

date, one might consider the pounders as part of some processing kit, though the whetstones do not fit in so readily. The only other context worth noting is that of the LO metal-working, in iron: here a whetstone would indeed be valuable, and bone points too could find roles to play. And that is about as far as it seems safe to venture.

THE ARCHAEOBOTANICAL REMAINS (BY A. LIVARDA)³⁶

An integral part of the LPN project was the application of a systematic soil-sampling strategy to retrieve bio-archaeological remains. Within this framework, plant remains have been collected and studied, providing valuable insights into the use of the different areas of the site, as well as into the overall economy of early Greek Knossos. This is the first publication of archaeobotanical evidence from the SM/PG to O periods in Crete and one of the few concerning botanical material from these periods in the whole of Greece. The results of the study of plant remains from LPN may therefore shed light on little studied and still elusive issues of palaeoeconomy in the Early Iron Age and Archaic periods.

SAMPLING AND PROCESSING METHODS

Twenty-three soil samples were collected from the SM/P to O levels of the LPN excavation. The sampling involved random collection of about 30 l of soil from undisturbed units (zembils), although the size of the zembil often dictated the actual volume of the earth collected, resulting in a series of smaller samples.

All soil samples were processed on site in a modified version of a York-style flotation machine in order to overcome the limitations imposed by the arid Cretan environment and the scarcity of water. The light, floatable fraction was collected in a stack of two brass sieves with 1 mm and 300 μ × aperture for the retention of the coarse and the fine flot respectively, while a 1 mm mesh was used to retain the heavy fraction (residue).

The flots were sorted for archaeobotanical remains using a stereoscope with magnifications ranging from ×7 to ×45. The residues were sorted with the naked eye.

The identification of plant parts was based on morphological criteria with the aid of modern reference material and seed identification manuals. The occasionally poor preservation of the material and the partial survival of some seeds posed limitations on the identification of various food and wild plants to species level. In the case of ambiguous identification of a species it was necessary to create intermediate categories; for instance, because of the lack of more secure diagnostic features, some cereals were identified under the broader classification of ‘emmer/einkorn’ (*Triticum dicoccum/monococcum*). The quantification of the material was based on the minimum number of characteristic plant parts.

SPECIES REPRESENTATION

Overall, the archaeobotanical material from LPN is poor, yet the plant remains point to the availability of a wide range of species. Various cereals, pulses, and fruits compose the food plant assemblage. Wild species—part of the natural vegetation—are also present in low

³⁶ I would like to thank Eleni Hatzaki for entrusting me with the study of the LPN archaeobotanical material, Mieke Prent, Stuart MacVeagh Thorne, Don Evely, and Holly Parton for their excellent co-operation, Anaya

Sarpaki and Evi Margaritis for their generous sharing of their unpublished work, and last but not least my friends and colleagues Georgia Kotzamani and Alison Cox for their comments and stimulating discussions.

numbers in all samples. The full list of species is presented in tables 1, 2, and 3 for Pan I, Pan II, and the hill-wash layer respectively.³⁷

In terms of cereals, barley (*Hordeum vulgare* L.) is the most frequently encountered species, represented by grains. Only one seed was preserved well enough to allow its distinction as 'twisted', which indicates the presence of six-row barley (*Hordeum vulgare* subsp. *vulgare*). No other diagnostic parts of barley, such as rachis internodes, were present in the samples. In addition, two types of hulled wheat, emmer (*Triticum dicoccum* L.) and einkorn (*Triticum monococcum* L.), were positively identified in a few samples; both cereals are represented both by seeds and glume bases. More wheat seeds and glume bases occur in these deposits but their poor state of preservation inhibited their secure assignment to a species; nevertheless, taking into account the overall picture of the assemblage, it is likely that these remains belong to one of the two glume wheat types identified earlier.

Despite the low quantity of plant remains there is a remarkable diversity of pulses, scattered in more than three quarters of the samples. This group of food plants includes lentil (*Lens culinaris* Medik.), bitter vetch (*Vicia ervilia* (L.) Willd.), chickpea (*Cicer arietinum* L.), broad bean (*Vicia faba* L.), and grass pea (*Lathyrus sativus* L.). Pulses not only constitute a rich source of protein for the human diet, but are also more drought resistant compared to cereals and their nitrogen-fixing qualities enhance the fertility of soil (Sarpaki 1992). Bitter vetch and broad bean, according to ethnographic observations, are also known to be used as animal feed (Zohary and Hopf 2000).

Three fruits and a nut, all well-known in Crete, are present in this assemblage: fig (*Ficus carica* L.), grape (*Vitis vinifera* L.), olive (*Olea europaea* L.), and possibly almond (*Amygdalus communis* L.). Fig, grape, and almond are present in Knossos since the Neolithic, whereas olive appears later, during the Bronze Age (Sarpaki forthcoming; Livarda unpublished results). Grape is represented by pips and stalks, while the remains of olive are largely stones but also loose kernels, i.e. the seeds attached to the olive endocarp. Kernels are rare finds that have been reported in one other occasion only from Greek contexts, from the Hellenistic site of Platania (Margaritis and Jones 2008b). In addition, some fragments of fruit flesh, either olive or grape, are present in a SM/EPG sample from Pan I (2600. 1) and in a PGB/EG (2497. 1) and a MG sample (2482. 1) from Pan II. In sample 2497. 1 from Pan II only one fruit fragment has survived, resembling pressed skin, but in the other two samples more fragments have survived. In particular, in sample 2482. 1 from Pan II a whole fruit is present, albeit broken in six fragments, whereas two swollen flesh fragments occur in sample 2600. 1 from Pan I.

The final group of species encountered in the samples is that of wild plants. These can be weeds resulting from cultivation or species naturally occurring in the local environment. The poor preservation of many of them restricted their identification to species level. Two species have been securely identified, namely *Lolium temulentum* L., which often occurs as weed in wheat cultivation, and *Lithospermum arvensis* L. The archaeobotanical assemblage also includes the genera *Bromus* sp., *Lolium* sp., *Vicia* sp., *Malva* sp., *Rumex* sp., *Euphorbia* sp., and *Reseda* sp. and species of the Gramineae, Leguminosae, Compositae, Polygonaceae, Chenopodiaceae, Labiatae, and Caryophyllaceae families that could not be further identified.

³⁷ The species list follows Tutin *et al.* 1964 and Tutin *et al.* 1968, 1972, 1976, 1980. In the case of fig: c = carbonized, m = mineralized; if there is no abbreviation following the numerical data, carbonized preservation is assumed; in the case of olive stones the parenthesis next

to numerical data indicates how many of the olives were found as whole (wh) and/or whether they occurred as fragments (fr); similarly cereal fragments are indicated with (fr).

PRESERVATION AND TAPHONOMY

Most of the archaeobotanical material was encountered in a carbonized state, the predominant mode of preservation in Mediterranean environments. In addition, a few fig seeds and grape pips were calcified, most probably because of the high calcium content of Cretan groundwater (Riley 1999), which would have surrounded these seeds with a protective crust in the form of calcium carbonate and would have gradually replaced their organic matter (Melentis 1988).

No extensive destruction layer was encountered in the LPN excavation; only occasional patches of burnt soil and a thin ashy layer at the bottom of Pan II (deposit B2).³⁸ Most plant remains were, however, charred residues in the accumulation of earth and debris, which partly accounts for the lack of any substantial quantity of archaeobotanical material.

The quality of the material was variable. Many seeds were broken or distorted, possibly due to poor preservation as a result of charring and/or post-depositional processes. The occurrence of the easily destroyed olive kernels may be the result of their exposure after breakage of olive stones during post-excavation handling (see discussion below) and thus the kernels should not be used as indicators of the preservation conditions; yet some other generally poorly surviving plant parts, such as wheat glume bases and fruit flesh, are present in the assemblage, which would indicate rather good chances of survival.

With regard to how representative the archaeobotanical material is, although it constitutes only a part of what was originally available on the site, every measure was taken to ensure that at least the sampling strategy, as described in the sampling and processing methods section, would result in non-biased assemblages. This is particularly important as all aspects of the recovery process, from decisions regarding the location and the amount of soil to be collected to the equipment used, can affect our perceptions of the availability and distribution of plant remains across a site (Van der Veen and Fieller 1982).

CONTEXTUAL ANALYSIS

Of the twenty-three samples, six were collected from the SM/EPG levels of Pan I, four from the PGB/EG levels (deposit B2) of Pan II, another three from the MG levels (deposit B4) of the same Pan, and ten were retrieved from the seventh-century hill-wash layers. These different contexts will be analysed separately here.

Pan I

Overall, the samples retrieved from Pan I are poor, with only one sample (2600.1) having more than fifty-five, but still fewer than a hundred, plant parts. Their contents are mixed, including cereals, pulses, fruits, and wild plants. Of the cereals, barley is the most common species, while some securely identified einkorn glume bases and a seed attest the additional presence of this species. Some more wheat seeds and glume bases attributed with certainty only to genus level occur in the samples. In addition, there is a significant variety of pulses, as all identified species of this category—except grass pea—are present in these SM/EPG levels. Only one sample (2598. 1) does not include any legume.

Both cereals and pulses seem to be the remnants of food preparation, such as spillage from

³⁸ See the section on stratigraphy by Mieke Prent.

Fruits						
<i>Ficus carica</i>	1	2	16c, 1m	2c, 3m	1c, 4m	11c, 13m
<i>Vitis vinifera</i> pip	1m	1	9	16	12	22
<i>Vitis vinifera</i> stalk						
<i>Olea europaea</i> stone	6(1wh+fr)	6(fr)	6(2wh+fr)	12(1wh+fr)	6(fr)	5(fr)
<i>Olea europaea</i> kernel						2
<i>Vitis vinifera</i> / <i>Olea europaea</i> fruit fragment						
Nuts						
cf. <i>Amygdalus communis</i>					1	
Wild						
<i>Rumex</i> sp.			1			
Polygonaceae				1		
Chenopodiaceae						
Caryophyllaceae						
<i>Reseda</i> sp.						
<i>Vicia</i> sp.						
Leguminosae small						
Leguminosae						
<i>Euphorbia</i> sp.						
<i>Malva</i> sp.	1	1	1			
<i>Lithospermum arvensis</i>			1			
Labiatae			1	1		
Compositae		1				
<i>Lolium temulentum</i>	1		1	1		5
<i>Lolium</i> cf. <i>temulentum</i>			2	1		6
<i>Lolium</i> sp.						
<i>Bromus</i> sp.						
cf. <i>Bromus</i> sp.						
Graminae small	1		3	2	1	2
Gramineae	1	1	3	7	4	3
wild indet.						
Total	15+fr	17+fr	53+fr	55	34+fr	84+fr

Fruits									
<i>Ficus carica</i>	2		3c, 8m	2		1	2c, 1m		
<i>Vitis vinifera</i> pip	11	5	3	21		2	15		7c, 1m
<i>Vitis vinifera</i> stalk							2		
<i>Olea europaea</i> stone	5(fr)	120(11wh+fr)	15(2wh+fr)	17(10wh+fr)		4(fr)	9(4wh+fr)		3(fr)
<i>Olea europaea</i> kernel		7					6		
<i>Vitis vinifera</i> / <i>Olea europaea</i> fruit fragment	1								
Nuts									
cf. <i>Amygdalus communis</i>						1(fr)	1(fr)		
Wild									
<i>Rumex</i> sp.									
Polygonaceae	1								
Chenopodiaceae									
Caryophyllaceae			1						
<i>Reseda</i> sp.									
<i>Vicia</i> sp.									
Leguminosae small			2	1		1			
Leguminosae									
<i>Euphorbia</i> sp.									
<i>Malva</i> sp.									
<i>Lithospermum arvensis</i>									
Labiatae						1		1	
Compositae									
<i>Lolium temulentum</i>			1						
<i>Lolium</i> cf. <i>temulentum</i>									
<i>Lolium</i> sp.									
<i>Bromus</i> sp.							1		
cf. <i>Bromus</i> sp.									
Graminae small			2	1			1		
Gramineae						1	1		
wild indet.	4		4	1		1	4		
Total	35	142+fr	51+fr	44+fr		17	49+fr		13+fr

<i>Vicia/Lathyrus</i> sp.	1	1	2	2	1	3	1
Legume large							
Legume indet.							
Fruits							
<i>Ficus carica</i>	1	3	2	2	1	4c, 2m	2c, 3m
<i>Vitis vinifera</i> pip	4	5	1	2	1	1	3
<i>Vitis vinifera</i> stalk		1		2	1	1	1
<i>Olea europaea</i> stone	2 (1wh+fr)	2 (fr)	4 (3wh+fr)	1 (fr)	4 (2wh+fr)	3 (fr)	8 (fr)
<i>Olea europaea</i> kernel							4
<i>Vitis vinifera/Olea europaea</i> fruit fragment							
Nuts							
cf. <i>Amygdalus communis</i>							
Wild							
<i>Rumex</i> sp.					1		
Polygonaceae							
Chenopodiaceae			1		1		
Caryophyllaceae							
<i>Reseda</i> sp.			1				
<i>Vicia</i> sp.							
Leguminosae small	1			1	2	1	1
Leguminosae							
<i>Euphorbia</i> sp.	1						
<i>Malva</i> sp.						1	
<i>Liliospermum arvensis</i>							
Labiatae			2		1		
Compositae		1		1			
<i>Lolium temulentum</i>		1					1
<i>Lolium</i> cf. <i>temulentum</i>							
<i>Lolium</i> sp.							
<i>Bromus</i> sp.				2		1	
cf. <i>Bromus</i> sp.				2			
Graminae small	1	1		3			1
Graminae							
wild indet.	4	6		7	1	2	4
Total	16	26+fr	15+fr	39+fr	14	31+fr	32

hearths during cooking, which were subsequently incorporated into the cultural surface. The presence of glume bases suggests that refuse from another stage of food preparation—that of grain dehulling—was also added to the assemblage. Storage of hulled wheat as spikelets is advantageous, as it can protect the seed from moisture and pest infection (Jones *et al.* 1986) and, according to ethnographic studies in Turkey and Greece (Hillman 1984; Jones 1984), its charring and pounding to separate the seeds from their glumes takes place piecemeal prior to food consumption. By-products of this procedure might have been discarded, swept away, or simply trampled to be finally incorporated into the archaeobotanical assemblage.

Figs, grapes, and olives occur in the same levels and are relatively common. Remarkably, mineralized fig seeds are as numerous as the carbonized ones. The fruit remains represent, most likely, snack-consumption refuse. The wild species, on the other hand, might have been by-products of various stages of crop processing. Some of the bigger, heavier ones, without a tendency to remain in heads, such as *Lolium temulentum* L., might be the by-product of hand-cleaning, the final stage of crop processing prior to food preparation. Other, much smaller species, such as small Gramineae, might have been by-products of sieving, an important part of the processing cycle to clean the crop after threshing and winnowing (Hillman 1984; Jones 1987). Alternatively, wild species might be intrusions of accidentally burnt local vegetation.

Thus the overall picture of the SM/EPG plant assemblage is that of secondary refuse from a number of activities, mixed together.

Pan II

A similar picture is observed for Pan II, with only one sample (2498. 2) deviating significantly. All samples from the two deposits, with the exception of the B2 sample 2498. 2, seem to be also a refuse mixture, including barley, possibly emmer and einkorn (the latter only in B2), bitter vetch, grass pea, or vetchling (*Lathyrus* sp., in B2) and some indeterminate wheat and legumes, fig, grape, olive, possibly almond (in B4) and various wild species. All six samples contain cereals, pulses, fruits and wild plants apart from the B4 sample 2480. 1, which did not have any pulses. Grape and olive are the most common species in all samples.

The final sample, no. 2498. 2, is particularly interesting as it consists of a large concentration of carbonized olives within only one litre of soil, suggesting a single depositional event. Eleven olive stones were complete and others were split in halves along the suture line, but most of them were fragmented. A close examination of both the half olive stones and the smaller fragments showed that most of them had a dull and rounded or smooth appearance, suggestive of pre-depositional breakage; a smaller proportion was rather shiny with sharp edges, an indication of fracture during or after deposition (Neef 1990; Margaritis and Jones 2007). The presence of seven kernels in the samples may also indicate some post-depositional breakage, as these plant parts, according to charring experiments, have fewer chances of preservation and can easily turn to ash (Margaritis and Jones 2008a). In order to calculate how many olive stones correspond to the pre- and post-depositional fragmented olive parts, the total weight of each set of fragments was measured separately and divided by that of the average weight of the eleven complete stones, which was 0.14 g (for a discussion of the quantification of olives see Margaritis and Jones 2008b); the weight of kernels is negligible and thus it does not influence the total weight of the olive stone. The results showed that another approximately twenty-four olive stones were broken during deposition or recovery, and should be added to the eleven whole ones, while another eighty-

five were already fragmented when deposited in the Pan. Therefore, the initially fragmented olive stones constitute slightly more than 70% of the assemblage. With the establishment of the composition of this assemblage some elaboration on its actual meaning becomes imperative.

Large concentrations of fragmented olive stones have been traditionally interpreted as by-products of oil production. In Crete, the earliest evidence for olive oil production on the basis of such data comes from the Middle Minoan period from the Tzambakas House, Rethymnon (Sarpaki 1999, 40–1). Moreover, recent experimental and ethnographic work from Greece (Margaritis and Jones 2008a), investigating the visible effects of the various stages of processing the olives, showed that, in addition to olive stones that were fragmented prior to their deposition, whole stones (in various proportions according to the apparatus used) and possibly some pulp, epidermis and kernels are to be expected among the olive oil by-products; at the same time, this study indicated that the presence of the last three components depends on the original quantity of olives and the processing technique, while the poor chances of survival and recovery of these softer parts may hinder their inclusion and/or identification in the archaeobotanical assemblage. The study concluded that a mixed assemblage of olive stones, some whole and some crushed prior to deposition, represents either the by-product of oil production or a combination of the remains of oil production and olive consumption (Margaritis and Jones 2008a).

In the light of these results, the PG/EG material from Pan II, which includes a relatively large amount of olive stones mainly crushed prior to their deposition, a smaller proportion of whole olives and a few kernels, suggests that some olive oil production was taking place in the area. The presence of more olive stones—mostly fragmented before deposition—and some fruit skin and pulp remnants in other samples from the Pan may also be scattered residue from this process.

Considering the context, this concentration of olives represents a secondary deposit. The accumulation of a variety of archaeological and archaeobotanical remains in the Pan provides further support to such a secondary deposition. The oil production residue, being in close association with the ash layer, may have been also used here as fuel since, after pressing, olive waste often retains considerable amounts of oil (Neef 1990) and can be employed for heating purposes, which further explains its burnt state of preservation. The general absence of the softer parts of the olive, such as pulp and epidermis, may also be the result of such a use, as these parts would be the first to disintegrate.

Hill-wash layers

The samples from the seventh-century hill-wash layers were rather poor, as they all included fewer than fifty plant parts. They all contain a recurrent mixture of cereals, pulses, fig, grape, olive, and various wild species. In terms of cereals, combinations of barley, including the six-row variety, emmer and other unidentified wheat species were present in all but one sample (263. 3). All hill-wash samples had pulses, including bitter vetch, lentil, and grass pea. The presence of fruit remains is less significant compared to the earlier assemblages from the Pans. On the whole, these seventh-century samples, in the same vein as those from the earlier deposits, appear to be the result of refuse mixing from various activities.

DISCUSSION AND CONCLUDING REMARKS

The early Greek plant assemblages from the LPN site represent mainly refuse from various activities related to crop processing and cooking, discarded in open areas. Although the small quantity of material does not allow thorough insights into the agricultural regime, some interesting observations can be made.

A broad subsistence base is suggested by the high diversity of food plants present in the SM to MG assemblages. These include barley, wheat, fruits, at least five different pulses, and a nut. The relative importance of the various species is uncertain but some indication does exist for the systematic exploitation of olive in oil production waste identified in Pan II. This specialized activity hints at a continuation of practices already established during the Bronze Age period at Knossos when the olive—together with grape and cereals—was exploited on a large-scale basis by the palace and the elite (e.g. Hamilakis 1996). However, the limited information available for the Knossian Geometric period does not allow a more social contextualization of olive oil usage.

The importance of cereals and pulses is hard to define on the basis of the available archaeobotanical remains. Nonetheless, similar deposits of a mixture of cereals and pulses have also been found in the PG levels at the Villa Dionysos, only a few hundred metres away from the LPN excavation site (Livarda, unpublished results). In addition, firm evidence for the separate storage of pea, grass pea, and broad bean is available from a Late Minoan II room of the nearby Unexplored Mansion (Popham 1984, 303–6), which suggests that pulses were appreciated as a food source rather than representing weeds in cereal fields. There is little reason to believe that an agricultural regime with complementary cereal and pulse cultivation would have ceased to exist after the Bronze Age. Such a regime would have a series of advantages, from an enrichment of the diet to a spread of labour to different times of the year and the availability of alternative crops in the case of failure (Halstead 1990). In terms of cereals, the indication for the dominance of barley and glume wheat is in accordance with the trend observed at the PG–G sites of Kastanas in Macedonia (Kroll 1983) and Iolkos in Thessaly (Jones 1982), although further archaeobotanical information suggests that on the mainland naked wheat started to replace emmer and einkorn during this period.³⁹ Because of the lack of storage deposits, the absence of naked wheat in Knossos should be treated with caution. This type of wheat does not require processing that involves charring, as does the removal of the glumes, prior to consumption. Therefore, in comparison with glume wheat, it has fewer chances of being incorporated in refuse deposits. The need for caution is further indicated by the fact that free-threshing wheat is already attested as the main cereal crop at Knossos in the Early Neolithic period (Sarpaki, forthcoming) and in small quantities in the PG floors identified at the Villa Dionysos (Livarda, unpublished results).

The scant evidence for the Orientalizing period at Knossos provides a similar overall picture of types of food plants to that observed in the other five sites from mainland Greece and the Aegean dated to the same period, although most of these refer to sacrificial contexts (see Megaloudi 2006). The relative importance of the various species is once again hard to judge, but some continuation of agricultural practices from the PG–G periods may be

³⁹ As at Kalapodi, near Lamia, see Kroll 1993; for Delphi, see Megaloudi 2004; and for Krania, Pieria: Margaritis, in press; see also Kroll 2000.

discerned. Moreover, the persistence of emmer suggests that—whether other free-threshing wheat varieties were used or not—glume wheat was still present in the Knossian diet.

These results demonstrate the potential of archaeobotanical investigations and highlight the importance of incorporating this line of evidence in every excavation project. Further systematic collection of bio-archaeological remains is necessary to add more data towards a fuller understanding of the economy, agriculture, and social life of Early Iron Age and Archaic Crete.

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THE DISCOVERY OF ELEUTHERNA: FROM THE FORMATION OF THE MODERN CRETAN STATE TO HUMFRY PAYNE'S EXCAVATIONS (1899–1929)¹

*For the centenary of excavations
at Eleutherna (1908–2008)*

INTRODUCTION

For the general public, the history of archaeology is largely a sequence of fascinating discoveries of hidden treasures, as well as of unravelling of primeval mysteries.² For the archaeologist, however, it is mostly an account of the complex development of a section of antiquarianism into a historical science, as well as a voyage of self-discovery.³ By the demonstration that scholars are not simply rediscovering the past, but also creating it, this field of research is particularly instructive in showing the shifting character of disciplinary practices and their connection with broader socio-political developments. It is largely for those qualities that the history of archaeological research has become a flourishing field of study in the last two decades.

Despite its widespread and increasing popularity, however, the subject is largely left out of the agenda and publication strategy of many archaeological projects centred on the Aegean. For example, the long, impressive series of publications—produced mostly by foreign schools—on major archaeological sites in Greece hardly elaborate on the scholarly interest those sites attracted before they were systematically excavated; and when they do elaborate, this hardly involves archival research.⁴ There are undoubtedly notable exceptions to this rule: for example, archival investigation is customary for scholars working in Knossos,⁵ while Vincenzo La Rosa's work at Phaistos includes a systematic study of the papers and works of Federico Halbherr, who instigated the exploration of the site (e.g. La Rosa 2000a–e; 2000–1; 2002; 2004; 2006). Similarly, Iannis Sakellarakis linked the resumption of excavations in the Idaean Cave with the study and publication of an existing corpus of late nineteenth-century

¹ I thank the British School at Athens for granting me permission to study and publish archival information on Payne's excavation at Eleutherna. I am profoundly grateful to the School's archivist, A. Kakissis, for facilitating my research and providing invaluable help and advice. The aid that several scholars kindly offered is acknowledged where appropriate. I also owe a debt of gratitude to the *Annual's* Editor and referees, as well as to Professors N. Stampolidis and P. Themelis for their comments and suggestions on this article. I take the opportunity to express my gratitude to the latter two scholars for the field training I gained in their excavations at Eleutherna. I also thank Professor Stampolidis for inviting me to collaborate in the study and publication of the Early Iron Age necropolis he is excavating at the site.

Special abbreviations:

BSA CR-L = BSA Corporate Records—London

BSA CR-A = BSA Corporate Records—Athens

JP = J.D.S. Pendlebury Personal Papers

² See e.g. Ceram 1954; Bacon 1976; Stiebing 1993.

³ Daniel 1967, 1981a, 1981b; Trigger 1989, 2006; T. Kalpaxis 1990, 11; 1993, 11–22; Stiebing 1993; Morris 1994; Bahn 1996; Renfrew 1996; Schnapp 1997; Hamilakis 1999, 2000b.

⁴ See e.g. Stillwell 1932, 126–33 for Corinth; Shaw and Shaw 1995, 1–14 for Kommos. Gallois 1910 (on the cartography of Delos) is a notable exception.

⁵ Out of a long and impressive list of references, I single out an early, even if controversial attempt to reconstruct archaeological contexts on the basis of extensive archival research: Palmer and Boardman 1963.

correspondence referring to the site and its antiquities (Sakellarakis 1998). It is often the case, however, that major publications, even those resulting from modern projects that adopt a diachronic and interdisciplinary perspective, involve no original archival research on the circumstances, aims, and politics of past investigations. Instead, they mostly rely on published information briefly listed in a couple of pages of their 'Introduction'.⁶

This state of affairs also applies to the major archaeological project that the University of Crete runs at Eleutherna, an ancient city located in central-west Crete and systematically excavated since 1985.⁷ The project has contributed immensely to our knowledge of the history of the city, the island, and the Aegean, as well as to the understanding of settlement and socio-political developments throughout a long period, from the beginning of the Bronze Age to the Medieval era (Stampolidis 2004a). Nevertheless, the project has paid limited attention to the ensuing periods, when the site supposedly dwindled into insignificance (A. Kalpaxis 2004, 115; Themelis 2004, 70–1).⁸ The present study, which focuses on the history of archaeological investigations at Eleutherna from 1899 to 1929, therefore deals with the later part of a long period for which little is known about the site. Previous references to early work in Eleutherna are brief, mostly repeat basic information, and occasionally include minor errors.⁹ It is symptomatic of the poor state of research on this subject that hitherto the strong Italian interest in the antiquities of Eleutherna has not been systematically charted, while Humfry Payne's excavations have received only limited attention. Accordingly, the present study aims at demonstrating the appeal that the ancient site exercised upon some of the pioneers of Cretan archaeology, describing the aspirations and efforts to excavate at Eleutherna, as well as discussing the monuments and finds identified and investigated, and their relation to others discovered in the last decades by the University of Crete. It also sheds important light on the research agenda of the British School in the 1920s and the practical side of a foreign excavation in Greece at the time. This study forms part of a larger project concerned with the aims and scope of pioneering work on Cretan archaeology of the historical period (Kotsonas 2005, 324–6; forthcoming a and b), which has generally been overshadowed by studies on early research in Minoan sites, particularly the clash of interests over Knossos.¹⁰

Ongoing research, primarily by La Rosa, on the correspondence of F. Halbherr forms the

⁶ See e.g. Cherry 1982, 10–13; Cherry *et al.* 1991, 63–6; Jameson *et al.* 1994, 3, 7–9; Mee and Forbes 1997, 2; Watrous *et al.* 2004, 3–6; Hayden 2004, 1; Haggis 2005, 2–3. In the case of the Berbati-Limnes publication, the reader interested in the history of past research is referred to a brief account published in an earlier article (Wells 1996, 15 n. 14). A more comprehensive study appears in Davis 1998, ch. 3.

⁷ The site, which is centred on the Prines hill, has been divided in three sectors, each excavated by a team from the University of Crete. The excavation of sector I, which covers the eastern slopes of the hill, was assigned to Professor P. Themelis; sector II, the top of the hill, was allocated to Professor T. Kalpaxis; and sector III, the western slopes, was assigned to Professor N. Stampolidis. Sectors II and III also cover parts of an area lying west of the Prines hill.

⁸ The picture of a site in demise is, however, hard to reconcile with the long resistance it posed to the

Venetians in 1364–6/7, which ended in its destruction and abandonment (Kotsonas forthcoming a).

⁹ A fairly common error regards dating Payne's excavation at Eleutherna to 1928, instead of 1929 (Themelis 1992, 91; 2004, 46; Momigliano 2002, 283 n. 86). Another, rather macabre error is found in Medwid's note that the British excavations at Eleutherna in 1929 were co-directed by D. G. Hogarth (Medwid 2000, 231), an important archaeologist and former Director of the British School at Athens, who, however, had died nearly two years earlier, as mentioned elsewhere in the same volume (Medwid 2000, 159). It was his son, W. Hogarth, who joined Payne's dig as an assistant (see below).

¹⁰ References on the clash are collected in Momigliano 2002, 268 n. 27. A series of publications discuss early Italian (Rizzo 1984; La Rosa 1990; Rocchetti 1995; Rizza 1995; Palermo 2001) and British (Coldstream 2000; Paton 2000) explorations of Cretan sites of the first millennium.

basis of the first part of the present study; the second draws largely on unpublished papers kept in the archives of the British School at Athens.¹¹ These documents provide surprisingly rich, even if unsystematic information on early research at Eleutherna. Much remains, however, to be located, including the notebooks from Payne's excavation at the site and the actual finds. Although greatly assisted by a number of scholars, to whom I am deeply thankful, my search for these items proved largely fruitless. The excavation notebooks were not in the archives of the British School at Athens, where all surviving documentation for Payne's later excavations at Perachora is kept, nor can they or any relevant material concerning Eleutherna be found in the Archaeological Museum of Rethymno or the Stratigraphical Museum at Knossos, whereas the archive of the Herakleion Museum has not been accessible.¹² The quest for the discovery of the notebooks in the United Kingdom was also unsuccessful. It is unlikely that M. Hartley, Payne's assistant in Eleutherna, took the notebooks to Britain, and no relevant material was traced in the archives of Girton College, Cambridge, where she was a student at the time she excavated in Eleutherna, or in the archives of Somerville College, Oxford, where she was a Classics tutor between 1934 and 1965.¹³ Moreover, the artefacts found by Payne are apparently neither in the museums of Herakleion, Rethymno, and Chania, nor in the Stratigraphical Museum at Knossos.¹⁴ Because of these lacunae, the following account can only outline the history of archaeological research in Eleutherna in 1899–1929. The purpose of this work is to stimulate scholarly interest and eventually lead to the identification of more evidence on early archaeological research at Eleutherna.

In another publication (Kotsonas forthcoming a), I discuss the modern discovery of Eleutherna, including visits by travellers from the fifteenth to the nineteenth century, efforts of cartographers active during those centuries to identify the site's location, and manifestations of the interest that some pioneer archaeologists developed in the site. The year 1899 has been chosen as the closing point of that study and the beginning of the present one because of its significance for the political history of Crete, as well as for the history of archaeological research on the island. Just before the end of 1898, the Ottoman army left the island, Crete was granted autonomous status under Ottoman suzerainty and Prince George was appointed as High Commissioner by the Great Powers (Britain, France, Italy, Russia).¹⁵ The Powers divided the island into four sectors and the district of Rethymno, including Eleutherna, was assigned to Russia. The political change favoured the beginning of excavations, which had

¹¹ Their full publication did not seem appropriate here, since they are concerned with a wide variety of issues that were current in the British School at the time and refer to Payne's excavation only in passing.

¹² Information drawn from the following: letter from the 25th Ephorate of Prehistoric and Classical Antiquities, dated 6 June 2006 and signed by the Ephor M. Andreadaki-Vlazaki (protocol number 3506); e-mail from D. Evely, Knossos Curator, dated 17 Nov. 2006; letter from the 23rd Ephorate of Prehistoric and Classical Antiquities, dated 27 Oct. 2005 and signed by the Ephor E. Grammatikaki (protocol number 16/3962). Notes on the Perachora documents were kindly provided by the British School Archivist, A. Kakissis.

¹³ I thank K. Perry, Archivist at Girton College Cambridge, for information provided in an e-mail dated 20 May 2005, as well as P. Adams, Librarian and Archivist at Somerville College Oxford, for information provided

in an e-mail dated 16 May 2005. Mr S. Hood, who knew M. Hartley, kindly provided information and suggestions for further research (letter dated 7 Nov. 2005) and so did Dr. D. Gill (Department of Classics, Ancient History and Egyptology, University of Wales, Swansea; e-mail dated 12 May 2005). M. Hartley died in 1996 at the age of 92 (according to information provided by P. Adams in the aforementioned e-mail); it is doubtful that she was ever contacted about information regarding Eleutherna.

¹⁴ Information drawn respectively from the following: letters from the 23rd and 25th Ephorates mentioned in n. 12 above; letter from the 25th Ephorate of Prehistoric and Classical Antiquities, dated 11 July 2007 and signed by the Ephor, M. Andreadaki-Vlazaki (protocol number 3248); e-mails from D. Evely, Knossos Curator, dated 17 and 22 Jan. 2006.

¹⁵ See e.g. Detorakis 1986, 438–9, 1988, 414–17; McEnroe 2002, 61; Momigliano 2002, 266–7, 282 n. 81.

hitherto been hampered by Ottoman laws on antiquities and the Cretans' fear that the finds would leave the island.¹⁶ Crete was now seen as 'the "Promised Land" of Aegean research' (Hogarth and Bosanquet 1899, 321) and foreign archaeologists rushed to submit their requests for sites to be excavated.¹⁷ Archaeological explorations had been conducted in Crete since the 1880s (see below), but it was only after 1899 that systematic excavations were inaugurated at a number of sites. This development established claims on behalf of foreign schools for particular sites or areas, which are largely still in effect (McEnroe 2002, 61–2; Momigliano 2002, 265). It further resulted in the formulation of the island's chronologies and typologies, as well as enduring research agendas (Hamilakis 2002b, 3). It was in this setting that an international interest in the antiquities of Eleutherna was generated.

A DECADE OF INTERNATIONAL INTEREST IN ELEUTHERNA (1899–1909)

The Russian control established over the district of Rethymno apparently did not attract the attention of any Russian archaeologists to Eleutherna or other sites.¹⁸ The ancient city, however, appealed to Italian and British scholars, who took advantage of the favourable attitude that henceforth prevailed towards excavations by foreigners.¹⁹ By revealing the island's deep-rooted Greek identity and demonstrating the significance of its legacy for Europe, these excavations served the struggle of the Christian Cretans for union with Greece (Momigliano 2002, 269; La Rosa 2002d, 10; 2000–1, 52).

Before 1899, this cause had mostly, even if indirectly, been served by the Italian project of recording the inscriptions of the island (La Rosa 2000d, 42–3; 2000–1, 86–7), nearly all of which were in Greek. In the mid-1880s (1884–7), F. Halbherr was sent to Crete by Professor Domenico Comparetti,²⁰ his mentor and patron, to locate what proved a long series of inscriptions, originating from several Cretan sites, including Eleutherna (Halbherr–Comparetti 1888, 162–70; Halbherr 1890, 745–6; Comparetti 1893, 419–30). Halbherr organized a similar exploration in 1894. In the previous year, Halbherr had submitted to A.L. Frothingham, Professor in Princeton College, NJ, and Managing Editor of the *American Journal of Archaeology*, the programme for a scientific mission, which would visit Crete from November 1893 to 1894.²¹ In a series of reports submitted to his then sponsor, the Council of the Archaeological Institute of America, and published in reduced form in the *American Journal of Archaeology* of 1894, Halbherr discusses the potential of several Cretan sites, including Eleutherna, which he calls 'an important centre of very early civilization' (Halbherr 1894, 539–40); some inscriptions of 'late years' (probably meaning Hellenistic) and an Archaic statue, which had been discovered and published only few years earlier by Joubin (1893), are cited as the site's attractions. According to the reports, Halbherr visited

¹⁶ Momigliano 2002, 267 n. 22; see also Chatzidakis 1931, 40; La Rosa 2000d, 14, 28; 2000–1, 56–7, 71.

¹⁷ See e.g. Chatzidakis 1931, 23 and 41. On Chatzidakis see Sakellarakis 1998, 194–5; Medwid 2000, 148–50; La Rosa 2000d, 2000–1; Brown 2001, 387; McEnroe 2002, 64–6.

¹⁸ The few available references to Russian scholars active in Crete regard the period before 1899 (Chatzidakis 1931, 49; La Rosa 2000d, 30 n. 115; 2000–1, 73 n. 115).

¹⁹ On the shifting and contrasting Cretan attitudes

towards foreign excavations see Sakellarakis 1998, 43–4, 139–41, 156–7; La Rosa 2000b, 37–41; 2000d, 14, 37–41; 2000–1, 56–7, 81–5; 2006; Momigliano 2002, 269–73.

²⁰ On Halbherr see Sakellarakis 1998, 202–4; Medwid 2000, 131–2; La Rosa 2000a; 2000d; 2000–1; 2004; Brown 2001, 384–5; Momigliano 2002, 263 n. 1. On Comparetti see La Rosa 2000d, 25; 2000–1, 68; 2002, 9; Brown 2001, 379.

²¹ Unpublished handwritten copy of a letter, the final part of which is missing: Halbherr to Frothingham, 4. Apr. 1893 (La Rosa 2000d, 27 n. 101; 2000–1, 70 n. 101).

Eleutherna in mid-August and collected a number of inscriptions (Halbherr 1894, 543–4), which he promptly published along with others that certainly or possibly originated from Eleutherna, but were kept in Rethymno (Halbherr 1896, 579–88, 604–8, republished in *I. Cret. II*, 141–74). Nearly one year earlier, on 13 September 1893, a pupil of Halbherr, L. Mariani, had visited Eleutherna and described its antiquities; he also referred to the Archaic statue discussed above and a plaster copy of it (Mariani 1895, 156, 187–8, 212–21 and pls. 6–7).

It is against this background that the Italian interest in Eleutherna reappeared in 1899; this time, however, it was rivalled by a British one. The latter originated in Arthur Evans's visit on 1 April 1899, during which he was informed by the villagers of Halbherr's previous visits to the site (Brown 1993, 80–1; 2001, 284–91). Evans saw some of the monuments regularly visited by early travellers, including the tower (FIG. 1) and cisterns on the Prines hill, the bridge lying further north (FIG. 2) and the church of Agios Antonis located in a Roman rock-cut tomb (Brown 2001, 285–7).²² He also identified several walls and buildings on the top of the Prines hill and mentioned the remains of an early Christian basilica and a sixth-century AD capital located on the eastern slopes, close to the Farangitis stream (Brown 2001, 291).²³ Further north on the same slopes, Evans spotted a well-built wall and a square tower and noted that a large number of tombs had been revealed next to the stream by a great flood of the previous year (*ibid.*).²⁴ He also mentioned several coins, the torso of a statuette, and a Christian inscription (*ibid.*).

The antiquities of Eleutherna immediately captured Evans's interest. In a letter addressed to Prince George, the Cretan High Commissioner, he included Eleutherna among the sites that attracted British archaeological interest. In response, the Prince granted the promise that the site would be reserved for British excavation.²⁵ Evans probably also wrote to Halbherr, evaluating the intentions of the Italians with respect to the site. This letter, which is now missing, was perhaps written just after Evans's visit to Eleutherna, given that Halbherr's reply is dated 18 April 1899 (Momigliano 2002, F.H.7). According to this, Halbherr requested excavation permits for Gortyn, Phaistos, and Axos. As for Eleutherna, he showed no great

²² For references to these monuments by early travellers, see Kotsonas forthcoming a. Evans commented that the bridge of Eleutherna was partly ruined on one side by a flood of the previous year and took photographs of the monument. The visits by Evans, and later by Payne and the Pendleburys (see below), are not recorded in Nakassis (2000, 360, 362).

²³ The long history of habitation on the top of the Prines hill is reviewed in A. Kalpaxis (2004, 110–15). The basilica in question can tentatively be identified with the one of Agia Eirini, by which Mariani had seen two capitals, which, however, he dated to the 3rd–4th c. AD (Mariani 1895, 215; see also Gerola 1908, 57 and Sanders 1982, 120). The church of Agia Eirini produced more fragments of sculptural decoration (Sanders 1982, 120; Tsigonaki 1998, 374–5). The capitals mentioned by Evans and Mariani can tentatively be associated—or even identified—with two 6th-c. capitals located in the neighbouring Byzantine basilica of Christ the Saviour and attributed to a local regional workshop (Tsigonaki 1998). Professor Themelis kindly informed me that another capital previously located in or by the latter church was

delivered to him by a local in 1985; this find is now kept in the old school of the village of Prines (Ancient Eleutherna).

²⁴ The term 'beyond' in Evans's text can here safely be taken to mean north or north-east. The 'tower' is discussed below, while the 'wall' can tentatively be identified with the well-preserved Hellenistic terrace wall explored by Themelis (2002, 18 FIG. 6). The group of tombs in question is important in representing a hitherto unknown cemetery (for the locations of other cemeteries of Eleutherna see Stampolidis 2004d, particularly 138–43).

²⁵ The promise of Prince George is mentioned only in a letter written by Evans almost thirty years later (see below, n. 41). The letter that Evans sent to Prince George in 1899, expressing the British interest in a series of Cretan sites, is lost. The British scholar, however, kept some notes of that letter in a diary, the published version of which does not mention Eleutherna, but displays a lacuna at exactly the point where the site's name was likely to appear (Evans 1943, 326–7).



FIG. 1. Eleutherna: photograph of the medieval tower on the acropolis probably accompanying Dixon's unpublished article for *BSA* (courtesy of the British School at Athens).



FIG. 2. Photograph of the north bridge of Eleutherna probably accompanying Dixon's unpublished article for *BSA* (courtesy of the British School at Athens).

concern and noted that no decision was taken. By 16 July, however, Halbherr had made up his mind and wrote to Evans 'ora domanderò anche Eleutherna' ('now I shall also ask for Eleutherna': Momigliano 2002, F.H.8). The permit was granted to the Italians before the end of that year, as documented in an article by Halbherr (1899, 526) and an unpublished letter sent to Comparetti.²⁶ The latter is interesting in including Halbherr's confession that he submitted permit requests for several Cretan sites regardless of a lack of means to excavate them all. His aim was simply to establish the Italian interest and repel that of other foreign schools.

The fate of Italian scholars' interest in Eleutherna proved to be largely dependent on the advance of their explorations in other Cretan sites. The interest was probably sparked by the commencement of Italian excavations in the neighbouring ancient town of Axos (1899),²⁷ but it soon waned, largely because of the establishment of major Italian excavations in the Messara in 1900 (La Rosa 2000c, 203–7). The discovery of the Minoan palace of Phaistos in 1900–1 and the beginning of excavations in the Minoan centre of Agia Triada in 1902 established a lasting interest in the Messara and brought Cretan Prehistory to the centre of attention for Italian scholars; the change of focus was largely stimulated by the startling discovery of the Minoan palace at Knossos a few months earlier (La Rosa 1984, 35; 2000b, 13–19; 2000e, 14–15, 19–22). As a result, already in 1901 Halbherr was arguing that some of the sites for which permits had been granted—including Eleutherna—should be abandoned so that work could focus on Phaistos.²⁸ At that time, however, another Italian scholar, G. Gerola, visited Eleutherna with an interest in its medieval monuments (Gerola 1905, 81; 1908, 56–7; 1939–40, 371, 483).

The Italian interest returned in 1908, with respect to a prospected visit of Halbherr to the site for the identification of inscriptions, in which he would be accompanied by his pupil Luigi Pernier.²⁹ Pernier had recently (1907) excavated the Archaic temple A at Prinias, with its imposing sculptural decoration, and would continue to work at this site until 1908 (Rizza 1984, 228). In a preliminary report, Pernier (1908, 441) argued in favour of the study of the early historical period of Crete, which had hitherto remained obscure, in contrast to the Prehistoric phases.³⁰ He further noted that, leaving aside the statue from Eleutherna, very little was known of Archaic Cretan sculpture, which he identified with the work of Daedalus and his apprentices (Pernier 1908, 442, 456, 460; see also Pernier 1914, 102–10). It therefore comes as no great surprise that in April 1909, by which time the dig at Prinias had finished, Pernier expressed an interest in excavating Eleutherna in that summer, along with two Italian students (Accame 1984, 12–13). Nonetheless, the plan was never realized, perhaps

²⁶ Halbherr to Comparetti, 16 Dec. 1899 (La Rosa 2000d, 29 n. 113; 2000–1, 72–3 n. 113; see also La Rosa 2000b, 14 n. 9).

²⁷ A connection, in the minds of the Italians, between Axos and Eleutherna is suggested in a letter from Halbherr to De Sanctis, of 29 July 1899 (Accame 1986, 21). For the commencement of Italian excavations in Axos, see Leekley and Noyes 1975, 102; La Rosa 2000d, 29 n. 113; 2000–1, 72 n. 113; Palermo 2001, 227. Given the marked Italian interest in Eleutherna manifested in 1899, one is surprised to see the lack of any reference to the site in Taramelli 1899, 308–20 on the antiquities of Axos and the wider area of Mylopotamos.

²⁸ Halbherr to De Sanctis, 22 Nov. 1901 (Accame 1986, 86–7).

²⁹ Halbherr to De Sanctis, 12 Apr. 1908 (Accame 1986, 142–5). On Pernier see La Rosa 1995, 41; Momigliano 2002, 286–7 n. 92.

³⁰ The importance of the discoveries at Prinias was remarkable because of 'the scarcity of Greek remains in Crete' (Dawkins 1907, 291). The importance of these discoveries and of Archaic Crete in general was taken to extremes by Löwy (1909; 1911).

because of Pernier's growing responsibilities as the future first Director of the Italian School of Archaeology (his office started in November 1909; Accame 1984, 18; La Rosa 1995, 40).

The return of an Italian interest in 1909 may also have been stimulated by a Greek initiative over the archaeology of the site, which (once again) was connected with political developments.³¹ In 1905, after further attempts at *enosis* with Greece were frustrated, Eleftherios Venizelos (the future Prime Minister of Greece) organized the Therissos revolt, which partly succeeded in changing the island's regime: Prince George was replaced (1906), a new Constitution was issued to reform the administrative structure (1907), and the bulk of foreign armies was withdrawn (1908), making union with Greece closer than ever (Detorakis 1986, 444–53; Makraki 1992, 395–413). Under these circumstances, in 1908 Venizelos proposed to the Cretan Assembly to commission an archaeologist with the repair of the well-known Hellenistic bridge located north of the Prines hill (FIG. 2). That 'unique monument for the Greek territory' (Petrulakis 1914b, 230) probably captured the attention of Venizelos, renowned for his deep interest in ancient Greek scholarship (Makraki 1992, 203–4). Although the restoration of the bridge formed part of a wider project for the expansion and repair of the island's road network, the Assembly's decree specified that the damaged blocks of the bridge would be replaced by new ones extracted from the ancient limestone quarries of the site.³² The enthusiastic approval and generous funding of the proposal (Petrulakis 1914b, 230), which demonstrates the care of the recently liberated Cretans for their past, is the first act of any Greek authority regarding the protection of the archaeological monuments of Eleutherna. The relevant work was carried out by E. Petrulakis, ephor in the district of Rethymno, who also carried out a small dig on the top of the Prines hill and discovered an inscription (Petrulakis 1912, 68. Petrulakis 1914a, 225–6).³³ Hence Petrulakis became the first excavator of Eleutherna in 1908. The year 2008 thus marks the centenary of that first dig at the site, but this has passed unnoticed, in contrast to other sites in Crete and beyond.³⁴

THE BRITISH EXCAVATIONS IN ELEUTHERNA (1929)

After the initiatives of Petrulakis and Pernier in 1908–9, the archaeological interest in Eleutherna apparently ceased. Although the non-violent union of Crete with Greece in 1913 had no serious effect on the island's archaeological exploration (Chatzidakis 1931, 28), the Great War (1914–18) drove Europe into serious and prolonged turmoil; furthermore, it personally affected the protagonists of Cretan archaeology³⁵ and held scholars off fieldwork

³¹ One may also add that some sporadic finds from Eleutherna, including a steatite scarab (Xanthoudidis 1907, 164–5) and fragments of relief pithoi (Courby 1922, 52 and pl. 2), were collected in the early twentieth century.

³² 'Επίσημος Έφημερίς τῆς Κρητικῆς Πολιτείας, Έτος 1, Τεύχος Πρώτον, Αριθμός 10, Chania 14 Aug. 1908, p. 166.

³³ More inscriptions from Eleutherna, which were located either at the site or were kept in the Museum of Rethymno, are published in the two articles cited above. In a third article, Petrulakis (1915, 51) published three naiskoi from Eleutherna. He proved very active in later years, and excavated more sites, including Axos and Atsipades (Leekley and Noyes 1975, 101–2).

³⁴ At the time of writing, no plans for celebrating Eleutherna's centenary were in place. For celebrations of centenaries of other sites see, e.g. Cadogan *et al.* 2004 (Knossos); La Rosa 2000b (Phaistos); see also the 'Convegno di Studi per i cento anni dello scavo di Priniàs (1906–2006). Identità culturale, etnicità, processi di formazione a Creta fra Dark Age e Arcaismo' and the articles celebrating the centenary of excavations in the Idaean Cave (Sakellarakis 1986–7, 1987). Similarly, the centennials of Italian and American archaeological work on Crete were celebrated by collective works (see respectively Di Vita *et al.* 1984; Day *et al.* 2004).

³⁵ La Rosa 2000d, 70–1; 2000–1, 123–4; Momigliano 2002, A.J.E.10–11.

in the island's major sites until the early 1920s.³⁶ Soon afterwards, however, the international—in this case British—interest in Eleutherna reappeared.

In 1928, G.A. Macmillan (1927–8, 306), the Chairman of the British School, argued 'it is anticipated that before long it will prove possible to inaugurate the systematic exploration of some site or sites of the archaic period in Crete'. The stimulus behind this plan is recorded in the correspondence of A.M. Woodward, the School's Director. According to a letter he wrote to Payne, the aim was to unearth an Archaic sanctuary with rich votive offerings.³⁷ Another letter³⁸ specifies that Archaic offerings that would contribute to determining the Cretan or Laconian origins of some classes of finds were particularly sought after. The latter finds would be important in connecting the prospective plan with one of the School's greatest projects, which focused on Sparta and Laconia in general, with excavations and publications directed by Woodward and aimed at sanctuaries, particularly that of Artemis Orthia (Macmillan 1927–8, 300, 305–6; 1928–30a, 258, 264). The debate on the 'origins' that concerned Woodward is not explained in the correspondence, nor in the publication of the Laconian sanctuary (Dawkins 1929), but it is likely that the Director was implicitly referring to Löwy's pan-Cretan theories (1909 and 1911), which occasionally involved comparisons between finds from Crete and Sparta.

Another incentive for the plan in question should perhaps be sought in recent developments in Cretan archaeology of the period. The publication of the bronzes from the Idaean Cave (Kunze 1931), which was then eagerly expected (Payne 1927–8, 297), was a reminder of the riches to be found in Cretan sanctuaries.³⁹ Moreover, the notable discoveries that the Italian Doro Levi had recently made in the Cretan Early Iron Age necropolis of Afrati (Levi 1925 and 1927–9) had reached British academia; the fact that their first commentator (Droop 1925, 12–3) was keen to discuss their Laconian correspondences takes us back to the School's interest in the links between Crete and Sparta. The British had also made some similar discoveries at the time. In 1927, Evans had invited Humfry G. G. Payne⁴⁰ to excavate in Knossos, at a previously known burial-ground of the Early Iron Age. Work resulted in the discovery of two tombs (Payne 1927–8, 224–5), and drawing on these and earlier finds, the young scholar established the Cretan ceramic sequence of the early first millennium. This would prove to be crucial for carrying out the new plan on Archaic Crete.

The first concern of the British School was the choice of the site to be explored and Evans played a major role in determining this. In an important letter to Woodward, Evans argues against a project at Knossos owing to the problematic preservation of Archaic remains at the site and suggests alternative options.⁴¹ He then rejects the suggestion of Lyktos,⁴² and proposes an excavation at Eleutherna. To support his case, he refers to the aforementioned promise of Prince George and stresses that the ephor Stephanos Xanthoudidis would gladly

³⁶ See Branigan 2000 for Knossos and La Rosa 2000b, 19 for Phaistos.

³⁷ BSA CR-A: BSA Excavation Reports A–K: Eleutherna: Woodward to Payne, 17 May 1929.

³⁸ Ashmolean Museum, Evans Archive: Woodward to Evans, 30 Apr. 1928; a photocopy of this letter was kindly supplied by S. Sherratt. A copy of this letter is kept in BSA CR-A: BSA Excavation Reports A–K: Eleutherna.

³⁹ For the large and impressive corpus of votive offerings from that cave, which was known at the time, see Halbherr and Orsi 1888.

⁴⁰ On Payne see Macmillan 1928–30a, 257; Powell 1943; Hood 1998, 71–5; Medwid 2000, 231–2.

⁴¹ BSA CR-L: BSA letters 1928: Evans to Woodward, no date. Woodward's reply (see above, n. 38) favours a date in late April for Evans's letter. For the problematic preservation of the Archaic phase at Knossos see Kotsonas 2002, where references to earlier scholarship are collected.

⁴² For the British interest in Lyktos, see Kotsonas forthcoming b.

support the British request, while no counter-claims would be raised by other foreign schools. The archaeological attractions of Eleutherna (FIG. 3) that he cites include the aforementioned Archaic statue published by Joubin (1893), several early inscriptions, one of which refers to political affairs and a serf class, identified by Evans with that of the Minoans,⁴³ and the well-known bridge (FIG. 2). He further supposes that a church on the top of the Prines hill overlies an ancient temple.⁴⁴ Evans also mentions that he had asked two scholars who were planning a tour of western Crete to visit Eleutherna and assess the site's prospects: should their report be negative, he suggested a dig at Phalasarna. However, he clearly favoured Eleutherna.⁴⁵ The two scholars Evans was referring to were W.D. Woodhead and P.J. Dixon (FIG. 4); the former was then Professor of Greek at McGill University, Montreal, and the latter was the Craven Student of the School, from Cambridge University, who had an interest in Archaic sites (Macmillan 1927–8, 300–1). Later, Dixon turned to politics and became the British Ambassador to France and the United Nations (Powell 1973, 64–5; Grundon 2007, 360).

Woodward was convinced by Evans's letter of the unfavourable situation at Knossos and the advantages of Eleutherna, but objected to the initiation of a long project at the latter site.⁴⁶ He further expressed an interest in the report that Dixon would produce after his visit to Eleutherna (on Dixon's report, see also below).⁴⁷

The directorship of the dig at Eleutherna was assigned to the young archaeologist Humfry Payne (FIG. 5). Payne had been a student of the British School at Athens in 1924–5, 1925–6, and 1926–7, had worked in Crete and published a long article on Early Iron Age pottery from Knossos. When he was assigned the project at Eleutherna, the 27-year old Payne was a Research Scholar of Christ Church, Oxford (Macmillan 1928–30a, 257), but would soon be elected Director of the British School at Athens, the youngest in the School's history, after A.M. Woodward declined reappointment after six years in office.⁴⁸ Payne took office in the autumn of 1929, just a few months after the prospected excavation at Eleutherna (Powell 1973, 72).

The details of Payne's initial involvement with the project at Eleutherna are obscure. The earliest record available is dated as late as November 1928. In a letter addressed to Macmillan, Payne mentions that he has studied the relevant literature on Eleutherna and finds the site 'extremely promising'.⁴⁹ He also reflects on contacting Woodward concerning the prospect of

⁴³ The inscription in question should be identified with one published by Petoulakis (1914a, 225–6) and referring to the class of the *apamiotai* (see also *I. Cret. II*, 156–7, no. 16). Petoulakis had published the same inscription in a slightly earlier article (1912), where, however, the part of the text mentioning the *apamiotai* had been considered as illegible. Evans's interest in that inscription was a determining factor in the instigation of the British project, see BSA CR-A: BSA Excavation Reports A–K: Eleutherna: Payne to Woodward, 11 May 1929 and Woodward to Payne, 17 May 1929.

⁴⁴ In the letter in question, Evans wrongly attributes that church to Agia Elena. A chapel of Agia Elena is located north of the Prines hill (see FIG. 3), but Evans probably refers to the church of Agia Anna on the top of this hill. Alternatively, he may be referring to the church of Agia Eirini, by which some Archaic inscriptions had earlier turned up (for the latter two churches see

Tsigonaki 1998, 358; for the Archaic inscriptions by Agia Eirini see below).

⁴⁵ Cf. BSA CR-L: BSA letters 1928: Le Fanu to Woodward, 13 Dec. 1928.

⁴⁶ Ashmolean Museum, Evans Archive: Woodward to Evans, 30 Apr. 1928 (see above n. 38).

⁴⁷ BSA CR-L: BSA letters 1928: Woodward to Le Fanu, 27 May 1928. BSA CR-L: BSA letters 1929, P–Z: Woodward to Le Fanu, 6 Jan. 1929. A later letter confirms that Dixon's report did exist (BSA CR-A: BSA Excavation Reports A–K: Eleutherna: Letter: Woodward to Payne, 17 May 1929).

⁴⁸ Macmillan 1928–30a, 257, 261; BSA CR-L: BSA letters 1929, P–Z: Woodward to Le Fanu, 4 Feb. 1929; Powell 1943, 5; 1973, 73.

⁴⁹ BSA CR-L: BSA letters 1928: Payne to Macmillan, 27 Nov. 1928.

excavation. A fortnight later, Payne's project was granted £100 by the Macmillan Studentship Fund.⁵⁰ Woodward was pleased with the news and wrote to Macmillan praising Payne and promising to support him, hoping for the collaboration of the new ephor, M. Pippas.⁵¹

Practical issues of the prospected dig at Eleutherna are raised in a letter dating to early January 1929.⁵² Woodward suggests that a request for trial trenches in different areas of the site be submitted to the Greek Ministry. He assumes that 8–10 workers could achieve the results anticipated within three weeks, but has no particular view on the season in which the work should be carried out. He also mentions that Winifred Lamb and Piet de Jong⁵³ could assist Payne. Lamb, who had just been elected Keeper of Classical Antiquities in the Fitzwilliam Museum,⁵⁴ had already expressed a desire to join the project as Payne's co-director.⁵⁵ This plan was passed on to Payne, who declined to accept Lamb's involvement, since he held that a dig must be directed by a single person, while showing deep appreciation of Woodward's remarks and expressing an interest in visiting the School's dig in Laconia to see how an excavation should be run.⁵⁶

The British School's permit request for 1929 includes the project at Eleutherna, listing it second, after that of Knossos, and mentions that Payne would make trial trenches starting in mid-May.⁵⁷ The permit was soon granted,⁵⁸ and Payne first visited Eleutherna in May 1929, accompanied by the Pendleburys, and supplied with fine delicacies provided by Evans.⁵⁹ The visit's timetable was recorded in detail by J. D. S. Pendlebury, who was then the Macmillan Student of the British School and would assume office as Knossos Curator in the autumn of 1929 (Grundon 2007). The visit in question is recorded in a series of photographs that survive rather poorly and in a letter by Pendlebury's wife Hilda to her mother.⁶⁰ These various sources document the visit in good detail. The three British archaeologists arrived at Eleutherna via the village of Margarites on 4 May 1929. Earlier that day, they had met the local Keeper of Antiquities, J. Daskalakis, at Rethymno to discuss Payne's prospected excavations. H. Pendlebury describes the Prines hill, the heart of ancient Eleutherna, as an island surrounded by valleys and recounts the beauty of the plants and trees.⁶¹ The team camped on

⁵⁰ BSA CR-L: BSA letters 1928: Le Fanu to Payne, 13 Dec. 1928; Le Fanu to Woodward, 13 Dec. 1928. See also Macmillan 1928–30a, 257, 261. The Macmillan Studentship was intended to encourage long-term students to engage in excavation (Macmillan 1927–8, 299).

⁵¹ BSA CR-L: BSA letters 1928: Woodward to Macmillan, 23 Dec. 1928.

⁵² BSA CR-L: BSA letters 1929, P–Z: Woodward to Le Fanu, 6 Jan. 1929.

⁵³ On De Jong see Hood 1998, 224–70.

⁵⁴ Macmillan 1928–30a, 260–1. Lamb went on to excavate in Lesbos: Macmillan 1928–30a, 265–6; Woodward 1929, 223. In the academic year 1927/8, Lamb was Honorary Curator of Classical Antiquities in the Fitzwilliam Museum: Macmillan 1927–8, 304. On Lamb see Hood 1998, 71–5; Gill 2004.

⁵⁵ BSA CR-L: BSA letters 1928: Lamb to Le Fanu, 29 Dec. 1928.

⁵⁶ BSA CR-L: BSA letters 1929: Payne to Le Fanu, 7 Jan. 1929. BSA CR-L: BSA letters 1929, P–Z: Le Fanu to Woodward, 25 Jan. 1929.

⁵⁷ BSA CR-A: BSA Excavation Permits, Proposals, Surveys: Excavation Permits 1903–39: Ἀγγλική

Ἀρχαιολογική Σχολή πρὸς τὸ Ὑπουργεῖον Παιδείας καὶ Ὁρησκευμάτων, 5 Jan. 1929.

⁵⁸ BSA CR-A: BSA Excavation Permits, Proposals, Surveys: Excavation Permits 1903–39: Ὑπουργεῖον Παιδείας καὶ Ὁρησκευμάτων, Τμήμα Ἀρχαιολογίας πρὸς τὴν Ἀγγλικὴν Ἀρχαιολογικὴν Σχολήν, 22 Feb. 1929 (protocol number 6874/230).

⁵⁹ Macmillan 1928–30a, 261–2; Powell 1973, 72; Grundon 2007, 106.

⁶⁰ JP: Photo Album 6: ACC no. 1445: nos. 198–208 (an unnumbered picture is missing); JP: Letter 400, dated 11 May 1929, titled 'Trip with Humfry. Eleutherna' and signed by Hilda and John Pendlebury, though clearly written by Hilda. This letter is actually richer in information than the article based on it published by H. Pendlebury 35 years later (1964).

⁶¹ Evans had earlier described the beauty of the landscape between Eleutherna and the Arcadi monastery (Brown 1993, 80–1; 2001, 285) and so did Payne (see below). Eleutherna has officially been declared as an area of natural beauty (Φύλλο Ἐφημερίδος Κυβερνήσεως/1242/B/16–10–1973; I owe this information to Professor Stampolidis).

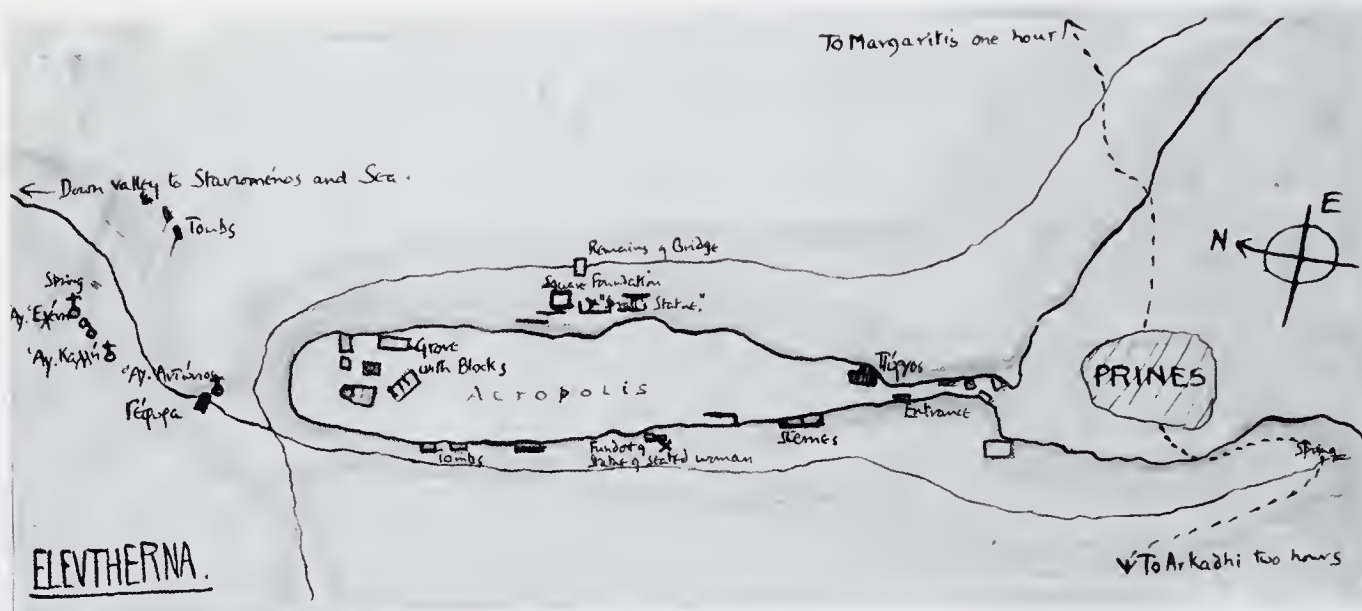


FIG. 3. Plan of Eleutherna showing the location of most monuments known in the early twentieth century, probably accompanying Dixon's unpublished article for *BSA* (courtesy of the British School at Athens).

the top of the hill⁶² and was supplied with water from the spring located south-west of the aforementioned tower and at a lower terrace.⁶³ They visited the bridge (FIG. 2) and Payne surveyed the site until May 6. One of the photographs taken at the time by Pendlebury (FIG. 6) illustrates a statue that was lying on the eastern slopes and was first mentioned by Spratt (1865, 94) (cf. FIG. 3) and later collected by S. Alexiou (1956, 421). Many of the locals were observing the British visitors, who were guided by Markantonakis, the mayor of Metochi, which can safely be identified with the modern village of Eleutherna, formerly known as Anachourdometocha.⁶⁴

Following his visit to Eleutherna, Payne submitted a report to Woodward expressing his admiration for the site's natural beauty and his concerns over the prospective project.⁶⁵ Payne wrote against a systematic exploration of the site, estimating on the basis of the latter's vast size that such a project would require £1,000 per year. He further commented on other practicalities: arguing that the harvest would necessarily delay the beginning of work until June, he proposed to dig for two or three weeks, beginning on 9 June. He also mentioned that he was planning to contact Hartley and Radford, two students of the School who had expressed an interest in joining the dig (see below);⁶⁶ Evans would provide the equipment necessary. The most interesting part of Payne's report is, however, the indication of the areas he was planning to dig. These included a rectangular building, tentatively identified as a temple (FIG. 7), and

⁶² Pendlebury (1964, 164) reports that the team camped 'on a terrace of olive trees at the northwest end' of the hill, but her letter clearly suggests 'near the watch-tower and causeway'; see also Grondon 2007, 107.

⁶³ For this spring, called Pigaidaki (*sic*), see Davaras 1967, 500–1; Themelis 1992, 92; Stampolidis 2004c, 99–100; Kalpaxis 2004, 112.

⁶⁴ Anachourdometocha was renamed Eleutherna in the early 1930s: Tsantiropoulos 1994, 46 n. 8; Stampolidis 2004b, 24; Kotsonas 2005, 25.

⁶⁵ BSA CR-A, BSA Excavation Reports A–K: Eleutherna: Payne to Woodward, 11 May 1929.

⁶⁶ Payne's concern with the participation of Hartley and Radford is also apparent in: BSA CR-L: BSA letters 1929, P–Z: Woodward to Le Fanu, 5 May 1929. On Hartley and Radford as students of the School see Macmillan 1928–30a, 260–1.



FIG. 4. P. J. Dixon (dressed in white shirt) in western Crete and unidentified companion/guide (from JP: Photo Album 2: ACC308: no. 266; courtesy of the British School at Athens).

the ruined Byzantine church of Agia Eirini, around which some Archaic inscriptions had previously been collected (*I.Cret.*, II, 150 no 8, 152 no. 10). If these two locations did not produce important finds, Payne would consider stopping the dig.

Payne's report is also important in shedding light on scholarly contacts over the project at Eleutherna. It documents that Halbherr had been informed of the British interest, most probably by Evans,⁶⁷ and also comments on Dixon's report (cf. above). Evidently, Dixon submitted an article on Eleutherna for publication in the *Annual of the British School at Athens* early in 1929. Following Woodward's scepticism, Payne strongly criticized the article and rejected the possibility of its being published, citing the support of the Pendleburys. His criticism proved decisive and Dixon's article was at once rejected.⁶⁸

Dixon's text has yet to be found, but the illustrations that accompanied it are—I believe—a series of photographs from Eleutherna that are kept in the archive of the British School (FIG. 1–2, 7–8).⁶⁹ These are attached to plain sheets of paper, which are numbered consecutively and include references to (perhaps) pages of a manuscript. Some of these photographs illustrate well-known monuments that survive today, including the ledge leading to the Prines hill (FIG. 8), the tower guarding it (FIG. 1), the bridge (FIG. 2) and the rock-cut aqueduct. Others, however, show a lost or unidentified square building located on the eastern slopes

⁶⁷ Halbherr in turn reported the news to De Sanctis, without commenting on it (Accame 1984, 209–10).

⁶⁸ BSA CR-A: BSA Excavation Reports A–K: Eleutherna: Woodward to Payne, 17 May 1929.

⁶⁹ BSA CR-A: BSA Excavation Reports A–K: Eleutherna: photographs from Eleutherna.



FIG. 5. Humphry Payne (courtesy of the British School at Athens).

(FIG. 7) that was to be explored by Payne. Moreover, one photograph illustrates the site where the Archaic statue (Joubin 1893) had been located in the late nineteenth century. A sketch map of Eleutherna (FIG. 3) kept along with the photographs is also very important in showing the location of the main monuments known to that date, including that of the square building and the Archaic statue.

Woodward approved the areas selected for exploration and accepted Payne's view that Eleutherna could not be a long-term project of the British School.⁷⁰ He also noted that the discovery of Archaic inscriptions alone would not be sufficient, and argued that only the unearthing of a rich Archaic sanctuary would satisfy both Payne and the School (Payne would, however, experience this satisfaction only one year later, in his excavations at Perachora: see Payne 1940; Powell 1943). Lastly, the Director wondered whether Payne would find students to assist his work, but noted that W. Hogarth (D. G. Hogarth's son, referred to as 'Hogarth junior') was interested in joining the dig and raised the possibility of visiting Eleutherna himself.⁷¹

In his reply, Payne welcomes Woodward's prospected visit and notes the lack of any news on the participation of Hartley and Radford in the dig.⁷² Hartley, who was then a Cambridge student and held an Old Girtonians' Studentship, had an interest in early Greek pottery

⁷⁰ BSA CR-A: BSA Excavation Reports A-K: Eleutherna: Woodward to Payne, 17 May 1929.

⁷¹ Woodward's worry is also expressed in: BSA CR-L:

BSA letters 1929, P-Z: Woodward to Le Fanu, 17 May 1929 and Woodward to Macmillan, 21 May 1929.

⁷² BSA CR-A: BSA Excavation Reports A-K: Eleutherna:

(Macmillan 1928–30a, 260). She had assisted Payne in his study of Knossian pottery (Payne 1927–8, 224 n. 1), participated in his dig at Eleutherna (Macmillan 1928–30a, 266), and published some Geometric and Archaic clay finds (the only ones that were ever published from the site: Hartley 1930–1, 108–11).⁷³ The collaboration between Payne and Hartley continued at Perachora in the following year (Macmillan 1928–30b, 284). The Eleutherna team was also joined by Hogarth junior during the later part of the dig, while Radford never came (Macmillan 1928–30a, 266).

Payne's excavations at Eleutherna lasted from 10 June–11 July 1929. Up to twelve workers were employed, along with foreman J. Katsarakis, a veteran of the School's digs from Palaikastro; Katsarakis, like Hartley, was later to follow Payne to Perachora (Macmillan 1928–30a, 266; Powell 1973, 12). Woodward was also briefly present during the first week at Eleutherna: he enjoyed his sojourn at the site, but was worried to see that all walls identified proved Roman in date and doubted whether undisturbed foundations could be traced on the top of the Prines hill.⁷⁴

Payne tested both the top and the slopes of the Prines hill (see his report in Macmillan 1928–30a, 266–8; Woodward 1929, 224–5). His exploration on the eastern slopes focused on a building located north of an area recently excavated by Professor Themelis (Excavation Sector I). The building was lying on the north-east foot of the hill, by the bed of the Farangitis stream. Measuring 6 m by 7 m, it was made of large blocks and was preserved to a considerable height (FIG. 7). I assume that the building was destroyed some time after Payne's excavation, since I could not identify it in a recent survey. Its blocks must have been incorporated in one of the modern terrace walls located in the area, which are clearly made by material robbed from ancient structures.⁷⁵ Payne's hopes that the building in question would be a temple were not realized: it proved to be a tower of late Roman date.⁷⁶ I am therefore inclined to identify this monument with the 'square tower' that Evans saw in that location in 1899 (cf. above). Terrace walls and domestic remains, as well as isolated burials were found throughout that area.⁷⁷ The 'very fine Greek terrace wall' (Macmillan 1928–30a, 267; Woodward 1929, 225) has convincingly been identified with a massive, well-preserved wall explored by Professor Themelis (2002, 33–7). Investigations also took place further south, by the churches of Agia Eirini and Agios Markos. Trenches were dug both inside and outside the former, because of the earlier discovery of Archaic inscriptions on the spot (see above). Nevertheless, all finds were Byzantine in date.⁷⁸ Equally disappointing, from the

Payne to Woodward, undated but clearly written after 17 May 1929. Hartley's participation is also mentioned in BSA CR-A: BSA Excavation Reports A–K: Eleutherna: Payne to Woodward, undated but clearly written during the last ten days of May 1929.

⁷³ Hartley discussed in detail only a Laconian krater, but her discussion stimulated a hot debate (Droop 1931–2; Hartley 1931–2) and the vase received considerable attention in the reports (Macmillan 1928–30a, 268; Woodward 1929, 224.).

⁷⁴ BSA CR-L: Box BSA letters 1929, P–Z: Woodward to Le Fanu, 21 June 1929 and Woodward to Macmillan, 10 June 1929. See also Macmillan 1928–30a, 257, 266.

⁷⁵ Spratt (1865, 94) records that the inhabitants of Eleutherna were unearthing ancient structures to acquire building material.

⁷⁶ BSA CR-A: BSA Excavation Reports A–K: Eleutherna: Payne to Woodward, 11 May 1929. The tentative identification of a temple in this area goes back to Spratt (1865, 94; cf. Psilakis 1899, 142); for the Roman date, see Macmillan 1928–30a, 266–7; Woodward 1929, 224.

⁷⁷ These finds echo Evans's earlier description of the area (Brown 2001, 291) as well as the results of the excavations conducted by Professor Themelis (see Themelis 2002 and 2004).

⁷⁸ Mariani (1895, 214–15) assumed that a Roman temple was located on a terrace above Agia Eirini, because of the presence of two capitals (see n. 23 above). In a recent visit to Agia Eirini and Agios Markos, I identified both Byzantine and Archaic stone finds to be published elsewhere.



FIG. 6. Statue lying on the eastern slopes of the hill of Eleutherna (from JP: Photo Album 6: ACC1445; no. 204; courtesy of the British School at Athens).

British explorers' point of view, were the trials made on the top of the hill, particularly on its north part, where a Doric capital of Classical date was resting (FIG. 3) and Excavation Sector II (Professor Kalpaxis) is nowadays situated. Investigations on the western slopes focused on the site of Orthi Petra, where the aforementioned Archaic statue had been located (FIG. 3) and Excavation Sector III (Professor Stampolidis) is situated. Early finds, mostly Protogeometric to Archaic pottery, did appear here and Payne suggested that 'the place was probably a necropolis, though we found no certain evidence of this' (Macmillan 1928–30a, 268; Woodward 1929, 226). His suggestion was fully confirmed in 1985, when Professor Stampolidis began uncovering substantial remains of the Early Iron Age necropolis of Orthi Petra (Stampolidis 2004c). Payne also discovered a deposit of clay figurines and coins nearby, which closely resembles another deposit recently identified just east of the core of the necropolis (Stampolidis 1994b, 37–8; 2004c, 94). North of Orthi Petra, Payne traced well-preserved terrace/fortification walls of Classical date and two Hellenistic graves.⁷⁹

The finds described did not meet the stated aims of the project and disappointed Payne, who concluded his report as follows: 'It will be seen from these results that there seems little if any possibility of the site justifying a second campaign' (Macmillan 1928–30a, 268; Woodward 1929, 226). It is indicative that only a few days after work ended at Eleutherna, Payne visited Lyktos, another Cretan city, to assess its potential.⁸⁰ Many years later, Dilys Powell, who was Payne's wife and would become a famous film critic, wrote 'the soil of

⁷⁹ Professor Stampolidis kindly informed me that the substantial walls mentioned by Payne should probably be identified with those he has recently located at the site of Lotos.

⁸⁰ BSA CR-L: BSA letters 1929, P–Z: Le Fanu to Woodward, 8 July 1929. For the British interest in Lyktos, see Kotsonas forthcoming b.



FIG. 7. Photograph of the square building, 'temple' or tower, located on the eastern slopes of the hill of Eleutherna; it probably accompanied Dixon's unpublished article for *BSA* (courtesy of the British School at Athens).

Eleutherna held no great treasure' and speculated that if the dig had proved important, Payne would have continued to work in Crete (Powell 1973, 12).⁸¹ In a similar vein, correspondence in the British School archive attest to a widespread 'disappointment of prospects',⁸² or suggests that at the end of the three-week period 'an unimportant cemetery' was located,⁸³ a comment that sounds ironic nowadays, since Orthi Petra has proved to be one of the most important necropoleis of pre-Classical Greece. In addition, a letter referring to the School's annual general meeting states: 'I do not think Payne has anything on which he could speak, owing to the comparative failure at Eleutherna'.⁸⁴ By November 1929, Payne, as the new Director of the British School, was making expeditions outside Athens, aiming at finding a site for excavation: work in Perachora would start only a few months later, revealing a rich Archaic sanctuary (Macmillan 1928-30b, 282, 285-7). Payne, however, did not entirely forget Eleutherna. In 1931 he took his wife there, but the visit was interrupted by a sudden and heavy rainfall (Powell 1973, 15). Apparently, the Idaean Zeus, who has been claimed to be benevolent to some foreign archaeologists working in Crete (La Rosa 2000e, 10), was not particularly so to Payne.

As already mentioned, Payne never published the results from his excavation at Eleutherna,

⁸¹ Powell discussed Payne's work at Eleutherna with Professor Stampolidis in 1989 (Stampolidis 2004b, 24). On Powell see Hood 1998, 71-5.

⁸² BSA CR-L: BSA letters 1929, P-Z: Le Fanu to Woodward, 2 July 1929.

⁸³ BSA CR-L: BSA letters 1929, P-Z: Woodward to Le Fanu, 8 July 1929.

⁸⁴ BSA CR-L: BSA letters 1929, A-P: Le Fanu to Macmillan, 9 Sept. 1929.



FIG. 8. Photograph of the ledge leading to the Acropolis of Eleutherna (taken from the medieval tower) probably accompanying Dixon's unpublished article for *BSA* (courtesy of the British School at Athens).

which would be overshadowed by the British excavations conducted at the Early Iron Age cemetery of Fortetsa near Knossos in 1933 (Brock 1957, xi). Eleutherna was not mentioned in an exhibition catalogue on British discoveries in Greece that was published only ten years later (Myres 1939, esp. map on p. ii). Similarly, recent publications on the history of British archaeological research in Greece mention Payne's dig in only a few words (Waterhouse 1986, 31, 125; Paton 2000, 177; Hatzaki 2005, 75).

Payne's work at Eleutherna marks the end of the early, intense as well as international interest in the site. For the ensuing half a century, the site only attracted minimal attention, largely through chance finds reported by the Greek Archaeological Service.⁸⁵ In 1984, however, the 25th Ephorate of Prehistoric and Classical Antiquities gave permission to the Department of History and Archaeology of the University of Crete to undertake an excavation project on the Prines hill and the surrounding area. Work began in September 1985 and Eleutherna captured once more the interest of the international scholarly community and also of the wider public (Stampolidis 1993; 1994a; 2004a; 2004b).

⁸⁵ Platon 1947, 637–8: Geometric, Classical, and Hellenistic, human and animal figurines from the top of the Prines hill; id. 1956, 421–2: a statue of Herculaneum woman type, another statue and pieces of architecture; Alexiou 1960: three fragments of late Archaic inscriptions; Tzedakis 1965: a statue of a large Herculaneum woman type; Davaras 1967, 500–1: a statue

of Herculaneum woman type and a piece of limestone sima bearing a lion head; Tzedakis 1970, 478: a fragment of a late Archaic inscription; Papapostolou 1975, 516–17: a fragment of a Classical inscription and some decorated pieces of architecture. See also Stampolidis 2004b, 25 and Kotsonas 2005, 326.

SUMMARY AND CONCLUSIONS

The political autonomy granted to Crete in 1898/1899 involved the opening of ‘the “Promised Land” of Aegean research’ to foreign archaeologists. However, despite the scale of excavations that was at once undertaken and the major archaeological discoveries that soon came to light, the island’s exploration continued to be partly conditioned by wars, revolts, and diplomatic struggles for the following two decades. Academic rivalries and shifting scholarly priorities also played a significant role in shaping the complex history of early archaeological research for which the island is renowned.⁸⁶

Facets of the history of Cretan archaeology from the end of the nineteenth to the early twentieth century have been discussed here with reference to Eleutherna. The interest that the site attracted, outlined on the basis of largely unpublished documents, is important in demonstrating the complexities and vicissitudes of early explorations. Typical of the scholarly rush that followed the events of 1898/1899 is the development—by British and Italian archaeologists—of clashing plans for excavations at the site. In the case of Eleutherna, the issue was easily resolved in favour of the Italians thanks to the amicable relations between Evans and Halbherr. Nevertheless, the Italian plans would quickly be dismissed because of the startling discoveries of the Minoan palaces at Knossos and Phaistos in 1900. British and Italian archaeologists were hereafter zealously engaged in unearthing and understanding a hitherto largely unknown civilization. Under these circumstances, it was not foreign scholars, but local magistrates of the Cretan Assembly who would revive the interest in Eleutherna. Reinforced by political developments following the Therissos revolt, the Cretan Assembly issued a decree providing for the preservation of the site’s heritage (1908). By specifying that restoration would be carried out with stone extracted from the local quarries and be overseen by an archaeologist, the decree epitomizes up-to-date conservation principles and documents the deep care and sensible treatment with which the recently liberated Cretans embraced the island’s monuments. Beside restoration, the archaeologist in charge, Petrulakis, conducted a small dig in 1908, thus becoming the site’s first excavator.

The birth of Minoan archaeology in 1900 did not completely overshadow the study of the island’s later phases. The discovery of the Archaic temple at Prinias and the formulation of theories on the great importance of Crete in the early historical period revived the interest in Eleutherna, which was renowned as the home of an early Archaic statue. The Italian plan for excavations in 1909 fell through, unlike the British attempt in 1929. This British excavation was intended to elucidate material connections between Crete and Laconia with respect to the British School’s major excavations in Sparta. It was also stimulated by publications of Cretan Early Iron Age material and served Evans’s interests in the island’s post-Minoan phases. Nonetheless, by failing to produce the desired results, the 1929 excavation at Eleutherna extinguished interest in the site for the ensuing half a century. This was revived only as recently as 1985, with the beginning of systematic excavations by the University of Crete, which continue to this day (2008). After 100 years from Petrulakis’s first dig, the present excavations have fully vindicated the intuition of the early pioneers, bringing to light a major Cretan site of the historical period.

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⁸⁶ Probably the earliest account of this history is found in Psilakis 1909, vol. A2, appendix.

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THE SHIPSHEDS OF SICILIAN NAXOS: A SECOND PRELIMINARY REPORT (2003–6)¹

NAXOS WAS the first Greek colony in Sicily, founded in 734 BC by settlers from Chalcis in Euboea and Naxos in the Cyclades (Hellanicus *FGrH* 4 F 82; Thuc. vi. 3. 1). Its primacy and the special status of its altar of Apollo Archegetes continued to be recognized by the Sicilian Greeks (Thuc. vi. 3. 1). It lies on the east coast, south of Messina, at the natural landing-point for ships sailing west to Sicily.

The port area containing the shipsheds was located to the north of the city centre, on the bay protected by Punta Schisò.² The shipsheds were found c.160 m inland from the current coastline at the northern edge of the city on the east slope of the Larunchi hill. Like the hill, they clearly lay inside the fortification walls (FIG. 1).³

They are built on the orientation of the fifth-century city street grid, 36 m north of and parallel to one of the main east–west streets (plateia C), with their back wall running parallel to a main north–south cross street, stenopos 6, and 1.50 m from it (FIGS. 1–2). It may well have been the orientation of the shipsheds that determined the orientation of the street grid (particularly in the light of the discovery of an early phase of the shipsheds from the turn of the sixth/fifth century; see below).⁴ Evidence for the relationship between the shipsheds and the stenopos has been destroyed by Late Roman construction in the area, including street levels found on the bedrock, continuing the general line of the ancient stenopos and certainly crossing the Roman *mansio* (Pelagatti 1993, 285).

A fourth slipway on the south side of the site seemed to decrease the space left (Blackman and Lentini 2006b, 549 and FIG. 3) for the assumed site of the agora (FIG. 1),⁵ but the most recent excavations have confirmed that the fourth was the last shipshed and that another major public building lay close by. In the final days of the excavation the question of the

¹ The excavations were directed by Lentini (then director of the Archaeological Service of the Soprintendenza of Messina), and benefited from generous EU funding (POR Sicilia 2000–6 project). Blackman was present throughout; Pakkanen joined the excavation in 2005, and prepared the reconstruction plans, computer model, and roof reconstruction (FIGS. 54–6 & Plans 1–2). All three contributed to this second report. Francesco Muscolino, Pinella Laudani and Paola Barbieri helped in supervising the excavation. Sveva Savelli helped in study of the material; Concetta Marano in plotting and drawing the plan (FIG. 7) and sections; and Pussia Siciliano in drawing the *sima* (FIG. 46). Topographic survey was carried out by Gaetano Cucinotta. Carmelo Ricciardo and Lidia Signorino helped in the administration of the project. We thank them all warmly for their support. We also wish to thank the staff of the Museum of Naxos: notably Sebastiano Testa Fralia for the logistic organization of the excavation; A. Marano for cleaning and conservation of artefacts; Giuseppe Mercurio for work on plans and drawings (e.g. B29) and Giuseppe Smiroldo for IT assistance. We also

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² There was probably also a small harbour or landing-place to the south of the city, east of the mouth of the Torrente Santa Venera, but none on the SE or east side of Punta Schisò: Blackman 2004, 54–5.

³ Confirmed by the 2005 discovery of a long stretch of *proteichisma* NW of the shipsheds and just west of the modern primary school.

⁴ Blackman and Lentini 2006b, 548–9, quoting Martin's suggestion that the same was true of Rhodes, and figs. 3–4; earlier version: Blackman and Lentini 2003, figs. 3–4.

⁵ Lentini 2004b, fig. on p. 28; 1993–4, 1008–12, FIGS. 1–2, pl. cii.1; 1998, 77–8, figs. 9–10; cf. Blackman and Lentini 2003, 388–9.



FIG. 1. Plan of north part of city.

southern limits of the site was resolved: a stretch of roughly cobbled passage (only 1.80 m wide) was found outside wall 5 (FIG. 3), and beyond it an impressive terrace wall made of large, well-jointed polygonal blocks, indicating a major public building to the south (FIG. 4).

This reconfirms the possibility of a contiguous agora, as at Thasos (Grandjean and Salviat 2006, 52–7 for the port; 62–78 for the agora). Unlike at Thasos, however, there is a distinct rise in the ground level, and an agora in this location would have been connected rather with the commercial port, which we have already suggested lay at the end of plateia C. The agora would have occupied at least the area between the shipsheds and this plateia. This latest discovery of the polygonal terrace wall defines better the relationship between the two important areas of the ancient city, civic and military. The narrow passage between the two complexes was not a major traffic artery, and would seem to be connected rather with the needs of the shipsheds; however, in the short stretch excavated of wall 5 no door was found



FIG. 2. View of stenopos 6 from the south.

opening into the passage (FIG. 3).⁶ The area between was heavily overbuilt in the Late Roman period, and the passage was rearranged as a storeroom for *dolia* (FIG. 5).

The dockyard clearly had only four covered slipways—surprisingly few, but perhaps appropriate for the small fleet of a medium-sized city, which was never a maritime power. The presumed location of the harbourside (front end) of the shipsheds means that, in the fifth century BC, the coastline was c.50 m farther inland than the previously assumed line of the ancient coast.⁷ The then sea level was therefore probably c.2 m above the present one (Blackman and Lentini 2003, 408–9 with references).

The area of the ancient city's northern harbour was identified by Pelagatti (1981, 302–3),

⁶ Coulton (pers. comm.) suggests that it perhaps served mainly for drainage of roof water from the shipsheds and from any building to the south.

⁷ Lentini 2001, 14 fig. 1; Blackman and Lentini 2003, 389–90, figs. 1–2; Lentini 2004b, fig. on p. 28; Blackman and Lentini 2006b, fig. 4.



FIG. 3. Stretch of roughly cobbled passage between wall 5 and the polygonal terrace wall.

but no harbour structures were found. Much of the site occupied by the shipsheds was uncovered in the excavations of 1981–3. The suggested identification as shipsheds of the structures underlying buildings of the Roman *mansio* (*floruit* third–fourth centuries AD)⁸ was confirmed by test trenches made by Blackman and Lentini in 1998–2000, followed in 2001 by excavation of shipshed 1 and the discovery of shipshed 4, described in our first preliminary report (Blackman and Lentini 2003). Four further excavation seasons were carried out in the

⁸ The suggestion was made first by P. Pomey and then independently by Blackman: Lentini 1998, 78; see already Lentini 1993–4, 1009–10 and figs. 1–2 (plans showing

porto?, *arsenale?*, *agora?*); Blackman 1997–8, 471–4; De Angelis 2000–1, 174.



FIG. 4. Detail of polygonal terrace wall.



FIG. 5. Storeroom for *dolia* created in the cobbled passage in the Late Roman period.

shipsheds in 2003–6, and this second preliminary report summarizes the results of those seasons.

THE SHIPSHEDS (FIGS. 6–7)

The excavation *in extenso* of shipsheds 2, 3, and 4 in 2003–6 was crucial for defining the chronology and answering many of the questions raised by the earlier excavation in shipshed 1. It gave a clear idea of the entire construction—with the remarkable first discovery of ramps of sand—and it showed also the close structural similarities between slipways 1 and 2, and slipways 3 and 4.

THE WALLS

The facings of walls 1–4 are made of largish blocks of tufa, though wall 5 includes also non-volcanic stones; all walls are unusually thick (over 1.1 m) and the filling between the facings is of rubble and clay. The facing blocks are more or less irregular and the joints are not tight. All five long walls are preserved to a height of at least 1.1 m, and the back west wall to a height of up to 0.75 m in shipsheds 1–2.

The northernmost wall 1 was clearly the exterior side wall, 1.12 m thick (Blackman and Lentini 2003, 397); it is at least 34.7 m long (*ibid.* 392), but it was not possible to excavate its



FIG. 6. General view of shipsheds from the east.

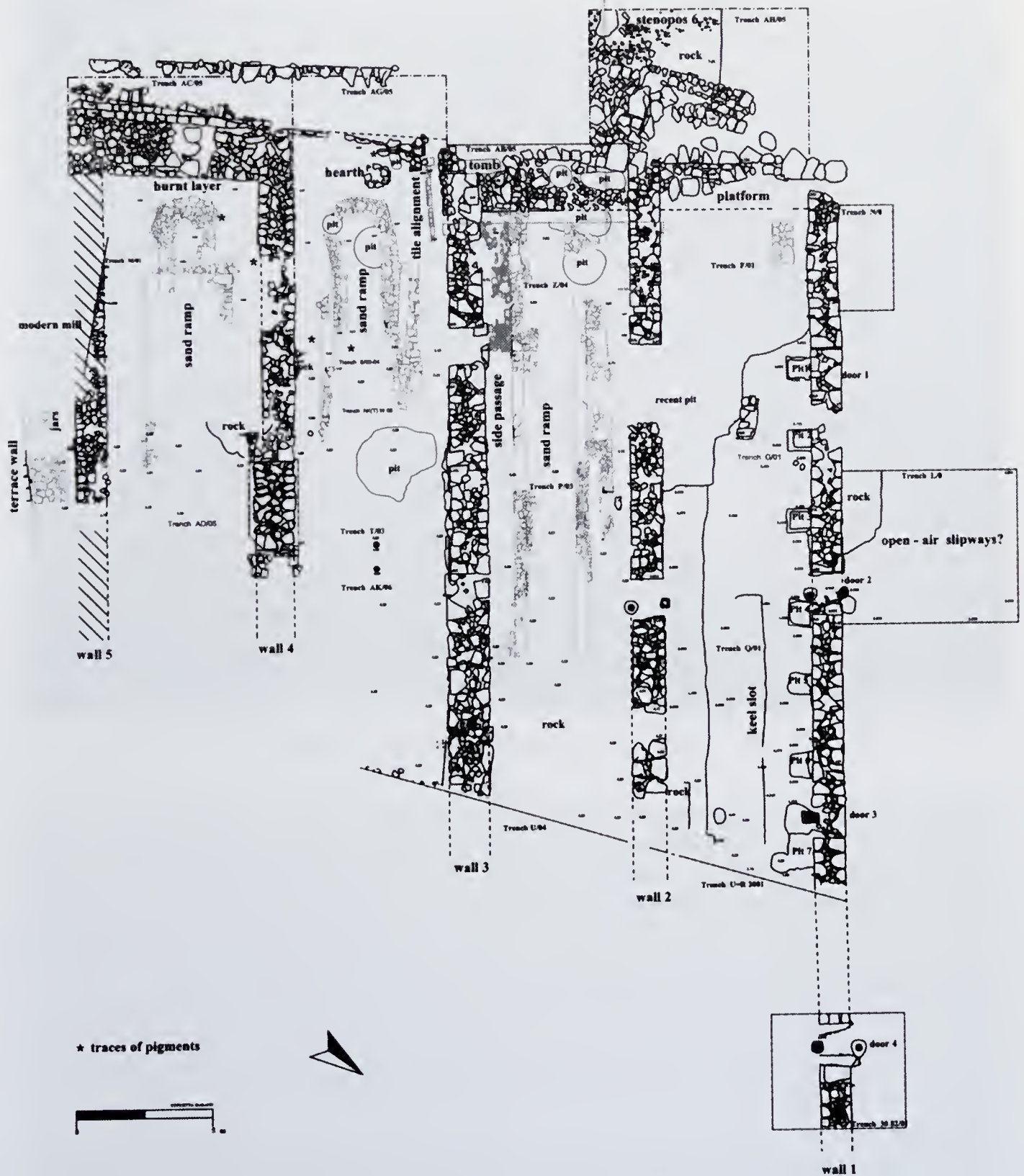


FIG. 7. General plan.



FIG. 8. Wall 1, from the north, with walls 2–4 behind.

full length to the harbour edge. It consists of a continuous socle of tufa masonry with a descending series of coursed polygonal blocks, forming stretches of wall *c.*6.8 m long (maximum preserved height 1.18 m) and separated by doorways 1.50/1.53 m wide, one with traces of a door pivot (FIGS. 7–8). Interior dividing wall 2 is slightly thicker (1.12–1.20 m: *ibid.* 397), and the irregular polygonal masonry is different from wall 1 (FIG. 9). It seems to have had doorways in alignment with those in wall 1. Dividing wall 3 (clearly the spine wall) is *c.*1.25 m wide towards the back of the shed and *c.*1.48 m wide for much of its length (FIG. 10). Wall 4 is on average 1.20 m wide, but the foundations of its lower eastward extension are wider: *c.*1.50 m (FIG. 11). The short revealed length of wall 5 is similar in width to wall 1 (1.12 m) (FIG. 12). Wall 2 reaches a maximum height of 1.48 m, wall 3 of 1.33 m, and wall 4 of 1.05 m.

The walls present different construction techniques, which most probably partially reflect different chronological phases and partially indicate different functions within the building. Wall 1 is coursed polygonal and the rest are all irregular polygonal (FIG. 8). Wall 3 is made of larger polygonal blocks, similar to those used on the west side of the city's fortifications (FIG. 10). The layout of the walls is also possibly diverse: wall 1 (above all) and also the western,



FIG. 9. Walls 2–3, from the south: wall 3 in the foreground, then ramp 2, then wall 2 (and wall 1 behind).

upslope part of wall 2 consist of separate descending stretches (FIG. 9), while walls 3 and 4 seem to be more continuous, but since even wall 1 has places where the top course is missing, this is possibly only a matter of worse preservation of some walls. There is not sufficient evidence to determine the system used in wall 5 (polygonal with small stones, not all of volcanic stone) (FIG. 12). The back wall of the sheds (at least, the part that survives) is a retaining wall with polygonal facing (cf. below, FIG. 22).

There are several clues for the material used in the upper parts of the walls that supported the roof. Because the surviving parts of wall 1 were built in at least five descending sections with their top surfaces fairly level (height *c.* 1.10–1.20 m: cf. Blackman and Lentini 2003, 411 FIG. 27), their upper parts would appear to have been, not of stone, but rather of a more perishable material such as mudbrick. No remains of columns were found, and no postholes have been found in the surviving walls (*ibid.*, 399). If there were timber supports above the low walls, they would need to have gone into the top of them for a sufficient depth for the structure to be stable. Alternatively, the stone walls could have been a socle for stone or mudbrick piers, but this is very unlikely: the preserved walls are too high and there are no Greek parallels for such a construction technique. The most likely possibility is that the walls



FIG. 10. Wall 3, from the south, with wall 2 behind.

above the socles were solidly made of mudbrick or light rubble.⁹ The first alternative is supported by traces of mudbrick which have been found in all the shipsheds, notably no. 3.¹⁰ If light rubble had been used, traces of it would certainly have been discovered during the excavations since it is not soluble like mudbrick. Wall 1 and the western part of wall 2 with their flat upper courses are well adapted to carrying directly an upper wall in mudbrick with a reinforcing wooden frame;¹¹ the rest of wall 2 and walls 3 and 4 were also possibly originally laid out with separate stretches to receive wooden horizontal supports, if they were indeed considered necessary.¹² For solid walls of mudbrick there are parallels in the Punic area—one thinks of Kition shipsheds and possibly Carthage—and it was the standard Greek solution for reducing costs also in monumental architecture.¹³ The unusual thickness of the stone socles

⁹ On the difficulty of determining the material above a dressed stone wall in stoai, see Coulton 1976, 143.

¹⁰ After the collapse of the roof most traces of the mudbricks would have easily been washed to the sea by rainwater.

¹¹ The preservation of wall 2 is not as good as that of wall 1, largely owing to Late Roman building activity at the site.

¹² Since mudbricks are a very flexible building material, there is no need for the stone socle to be level,

as is demonstrated e.g. by the preserved section of the Athenian city wall at Kerameikos (Ohly 1965, figs. 50–1) and the barrack building at Phylla (Building 3: Coulton 2002, 9–20, 29). For the use of mudbricks with timber supports, see Martin 1965, 63–5; for a reconstruction of a stone socle and mudbrick wall with timber supports, see Schwandner 1999, 530. It is also possible that the top surfaces of walls 3 and 4 could have been destroyed during the later use of the site.

¹³ For Greek parallels, see the section below on the



FIG. 11. Wall 4, from the north.

probably reflects the height of the wall: for example, the barrack building of the Fort at Phylla has a socle thickness of 0.52–0.75 m with a reconstructed wall height of c.3 m; the same dimensions for the temple of Hera at Olympia are 1.18 m and c.8 m.¹⁴ Any system of solid walls would have reduced the light in the slipways, which were already rather narrow and cramped, and so we will return to the question of lighting later.

Almost certainly the openings in wall 1 were doorways (from the evidence of a pivot hole);

reconstruction of the complex. It has been estimated that a skilled brickmaker and his assistant could build up to 20 m³ of solid wall in a day, while a stone-cutter probably could only manage one-twentieth of this (Wright 2005, 99); in addition, depending on the distance from how far away the clay and tufa needed to be transported, clay was often significantly cheaper than stone: when mudbrick was used the quarry costs and possibly also transport costs of stone, often more significant than the final work at the site, would have been saved (the accounts from Didyma show that the cost of erecting and finalising a column of the Hellenistic temple of Apollo were only a third of the overall costs: Martin 1965, 170–2).

¹⁴ Phylla: Coulton 2002, 29 (the reconstructed wall height is partially based on the known door widths but also on structural and practical grounds); Olympia: Adler

et al. 1892, pls. 18, 21 (wall thickness, column height); Dörpfeld 1935, pl. 5 (reconstructed cella wall height based on known column height and estimated entablature height and roof angle: 5.22 m + c.2.8 m (measured from plate) ≈ c.8.0 m). Coulton comments that the Phylla barrack building (c.500 BC) also provides other more or less close parallels for the shipshed complex at Naxos: a Corinthian tiled roof without decoration on a semi-monumental, functional public building (comparable to the later roof at Naxos); arrangements of tiles after abandonment; preponderance of simple drinking cups; cups with owner graffiti (only single letters) in a context of communal military living; and even a triangular arrow-head (SF 15), which confirms the character of the building; cf. Coulton 2002, 9–20, 29–39, 57–60, 87, 91–98, 112, 114.



FIG. 12. Wall 5, from the north.

the upper part was therefore continuous in the final phase. The outer face of wall 5 was more irregular than that of wall 1: perhaps for this reason and to protect the wall foot from erosion by water coming off the roof, a revetment of roof-tiles was placed vertically against its base ('splash protection': FIG. 13) in the final phase; they are of the same dimensions as the pantiles used in the shipsheds. The rest of the construction of wall 5 seems earlier.

LENGTH AND WIDTH OF SLIPWAYS (FIG. 7)

It was not possible to excavate the slipways for their full length to the harbourside owing to overlying modern buildings. The maximum length of the slipways excavated is 34.7 m (Blackman and Lentini 2003, 392). If there was one further harbourside stretch of wall 1 of the same length as the three stretches to its west, then the minimum internal length of slipway 1 would have been c.40 m; if there were two further stretches, the minimum length would have been c.48 m.¹⁵ The average clear widths of slipways 1 and 2 (5.42 and 5.24 m respectively) are slightly narrower than those of slipways 3 and 4 (5.64 and 5.74 m respectively).¹⁶ (See Plans 1–2.)

¹⁵ The average length of the wall stretch in wall 1 is 8.3 m including the door opening, and 6.8 m without it.

¹⁶ A new survey of the walls was carried out in 2006 with a laser-equipped total station: a point cloud was measured on the vertical surfaces of each wall, and the

measurement sets were analysed using ArcMap GIS program. For shipshed 1 the average of ten width measurements was 5.42 m and the range 5.36–5.45 m; for shipshed 2 the same values were 5.24 m and 5.17–5.33 m (10 measurements); for shipshed 3, 5.64 m and 5.59–



FIG. 13. Wall 5, from the south, with tile cladding.

SHIPSHED 1

The details of our excavation of this shipshed were given already in our first preliminary report, and we do not repeat them here, except for points where our interpretations there are confirmed or modified by later discoveries.

The floor of shipshed 1 has been excavated down to bedrock that finishes *c.*6.7 m from the back wall. It is not completely clear whether it had a central ramp, but this possibility is suggested by a small length (*c.*1.6 m) of narrow wall of small stones¹⁷ that begins *c.*1.5 m from the back wall. If it was the retaining wall of a ramp positioned centrally in the shed, the ramp would have been just over 3 m wide internally and *c.*4.5 m wide externally.

In shipshed 1 there is part of what appears to be a platform (*c.*1.18 m wide), running along the back wall (Blackman and Lentini 2003, 403 and FIG. 19). Because a relatively rich deposit of pottery, with a noticeable number of drinking vessels, was found towards the back of the shed, we had suggested that the back 5–6 m of the shed was a *taverna* (ibid. 402–4; Lentini and Blackman, forthcoming b). No such concentrated evidence for drinking has been found in shipsheds 2–4, so the suggestion remains in consideration; but in other respects the interpretation of this part of shipshed 1 needs to be reviewed in comparison with shipshed 2 (FIG. 14). The latter has a solid platform at the back, sand ramp with retaining walls and paved side-passages (cf. below, FIGS. 18–20). Both shipsheds had a back wall *c.*0.75 m high.

5.70 m (8 measurements); and for shipshed 4, 5.74 m and 5.71–5.76 m (3 measurements). The dimensions are slightly different from the preliminary data published in Blackman and Lentini 2003, 405.

¹⁷ Blackman and Lentini 2003, 409 fig. 25 (first interpreted as a bench: 403 and fig. 19).



FIG. 14. Western part of slipway 1 (from SW): in the foreground, the platform; on the left, possible remains of the retaining-wall of a (now lost) central ramp of sand.



FIG. 15. Central ramp of sand in the upslope part of slipway 2, from the east.



FIG. 16. Slipway 2, from the west.

SHIPSHEDS 2–4

In 2003–4 two more slipways (nos 2–3) were excavated *in extenso*.¹⁸ Here the surprising discovery was made of ramps of sand in the upper part of the slipways, apparently continued lower down by cobbled ramps (FIGS. 15–17). The sand ramps were built on the bedrock, and retained by low stone retaining walls; the ramps were resurfaced and the retaining walls raised from time to time during the fifth century BC (FIG. 15). A fine stretch of paving c.1 m wide was found on the south side of shipshed 2, between the retaining wall of the ramp and the main shipshed dividing wall 3 (FIG. 18). The ramp is preserved for over 16 m, and ends just *before* a platform 1.80 m wide, at the back of the shipshed; and its south retaining wall and the paved side-passage end *at* the eastern edge of this platform (FIGS. 18–20). A damaged platform was found at the back of shipshed 1 in 2001, but we are now able to reconstruct the back end of shipshed 1 by analogy with shipshed 2, where the situation is clearer, despite the damage caused by Late Roman pits and stone-robbing (FIG. 16).

A striking feature of the sequence of sand ramps is that in the later (last?) phase(s) they are no longer central and 3.50–3.65 m wide but narrower (2.20/2.35–2.60/2.70 m) and displaced by about 40 cm to the south; in shipshed 2 but not 3, the south retaining wall remains on the same line, and it is the north retaining wall which is displaced (FIGS. 7, 15). In shipshed 2 the gradient of the sand ramp appears to be 1 : 9 (c.6.3°), and of the cobbled ramp 1 : 25 (c.2.3°), but both figures must be taken with caution.

Close similarities between slipways 1 and 2 were already clear in 2003–4, and close similarities between slipways 3 and 4 emerged in the 2005–6 seasons. In the upslope (western) parts of shipsheds 3 and 4 a remarkably similar arrangement was found (FIG. 21), different from that in shipsheds 1 and 2. The back wall of shipshed 3 had suffered greatly from later stone-robbing; this may also have removed the back platform, but it is possible that no platform was built; in the back wall there is a gap in the inner facing which suggests a doorway (FIG. 22). Shipshed 4 had a platform with possibly a stepped back wall (FIG. 23). The retaining walls of the ramp in shipshed 3 swing up and narrow into a curving end, adapted to the stern of a ship, in the last two of three phases (FIGS. 24–5). This discovery made it possible to reconstruct the more puzzling remains in shipshed 4: one apparent difference here is that in an earlier phase the retaining wall ends at a straight cross-wall on a line 3.41 m east of the platform: it is the back wall of the earlier ramp, 2.40 m east of the curving back wall of the later ramp (cf. FIGS. 26–7). The same may also be the case in shipshed 3. The ramps may thus have been extended c.2.40 m upslope (westwards) in their last phase(s), at the same time as the main walls of shipsheds 3 and 4 were perhaps moved back to the line of the back walls of shipsheds 1 and 2 (the western end of walls 3 and 4 is of poorer quality and almost without foundations: FIGS. 22, 28).¹⁹ Alternatively, the back wall of all four shipsheds was moved back at the same time (see below: ‘Chronology’); this hypothesis is accepted for the reconstruction plan of phase 1 (Plan 1).

At the back of shipshed 4, under deep Roman levels (at least four phases between the late third and early eighth centuries AD), the clearest evidence was found for the final phase of the fifth-century BC dockyard: a mass of fallen tiles of the end of the century and considerable

¹⁸ For an initial summary of the results see Blackman and Lentini 2006a; Blackman in De Angelis 2007, 157–8.

¹⁹ The pottery finds are not discussed in detail in this

report, but it is important to note that the pottery of the late 6th/first half of 5th c. comes above all from slipway 3 (see below: ‘Chronology’).



FIG. 17. Cobbled paving of the downslope part of slipway 2.



FIG. 18. Paved side-passage on slipway 2.

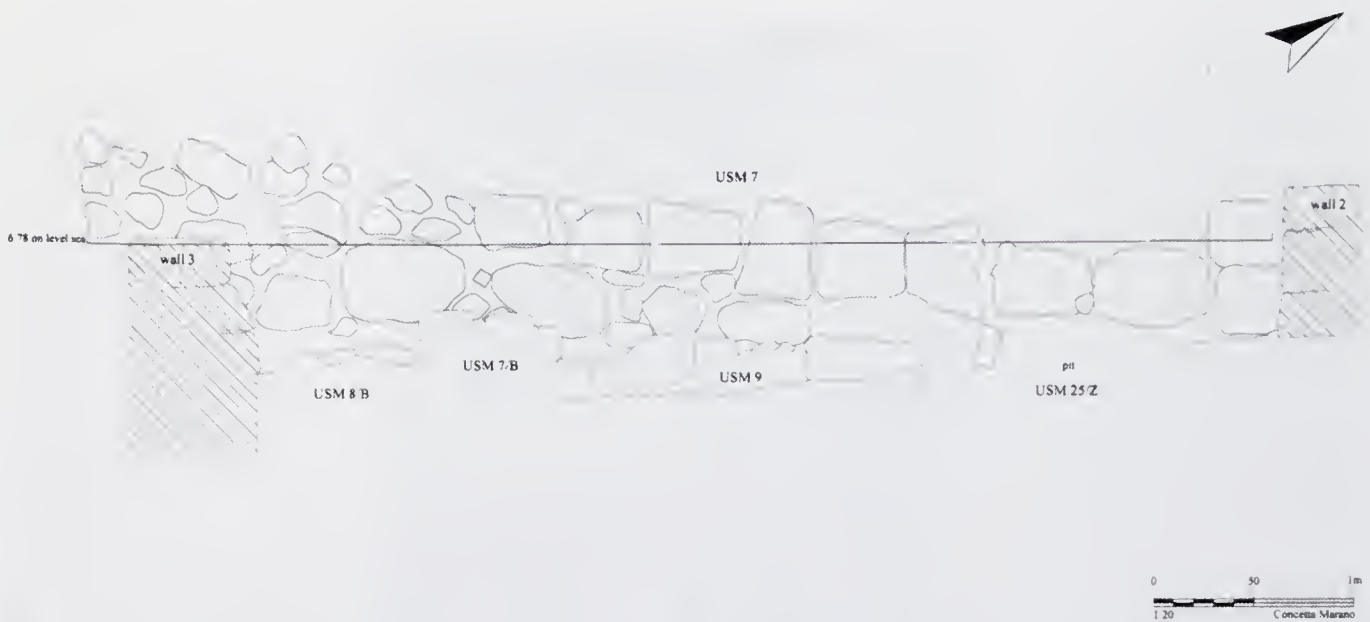


FIG. 19. Section (south/north) of west end of slipway 2.



FIG. 20. Shipshed 2 platform, from the north.



FIG. 21. Western part of slipways 3-4, from the south.

traces of burning and ash—perhaps the first indications of a violent destruction of the dockyard (FIG. 29). Little was preserved of the lower parts of shipsheds 3 and 4, but both clearly had sand ramps, in shipshed 3 with side walls and cobbling farther downslope to the east.²⁰

In the overlying level in shipshed 4 a large number of fragments of Graeco-Italic wine amphorae indicate use of the compartment as a store-room in the fourth (third?) century BC. This could explain the disappearance of the underlying ramp.

HAULING AND SLIPPING

In shipshed 1 a shallow rock-cut longitudinal depression was identified by us as a groundway, and a cross-cutting at the top end of the depression as a slot for a timber sleeper (Blackman and Lentini 2003, 404, 393 fig. 6). A number of doorways in both walls 1 and 2 lining slipway 1 have a pair of rock-cut pits or postholes (ibid. 393-4 and figs. 6-7; Blackman 2003, 89 and fig. 14. 9). Some were clearly made to hold roughly squared vertical timbers. We suggested earlier that these might have served as 'buffers' to hold the ship steady when it was hauled along the slipway. Alternatively, they may have been for capstans, but we acknowledged that

²⁰ In shipshed 4 (Trench AD), below the level of the missing ramp, a stratum was identified containing LGII

and sub-Geometric pottery. This will be discussed in a later report.



FIG. 22. Back wall of slipway 3, with ramp 3 and western end of walls 3 and 4, from the east.



FIG. 23. Head of ramp, platform and possibly stepped back wall of slipway 4, from the north.



FIG. 24. Curving end of central ramp of slipway 3, with 'hearth' and Late Roman pit.



FIG. 25. Phases of curving end of central ramp of slipway 3, from the north.



FIG. 26. NW corner of straight cross-wall ending the central ramp in the earlier phase of slipway 4, from NE.

these would be more likely farther up the slipway (Blackman 2003, 89; Blackman and Lentini 2003, 394). No similar evidence has been found in the other walls, which have little trace of doorways (only one in wall 3); and no clear evidence of hauling-equipment was found on any of the slipways or on the platforms behind. We assume that timber groundways were laid on the bedrock, sand or cobbles, but the carbonised remains of timbers that were found are not definitely from groundways rather than from the roof.

A remarkable feature of ramps 3 and 4 was the upswing at the rear, so that the ship would have 'nestled' against it when slipped, and the curving upper end that would have provided more working space for the crew. One thinks of the ramps at Oiniadai (Kolonas 1989–90; Blackman *et al.* forthcoming), with the difference that the latter are rock-cut. As we have said, the sand ramps were preserved for a maximum of over 16 m (slipway 2), continued downslope (eastwards) by cobbled ramps (slipways 2 and 3). It is possible that the sand ramps continued some way farther down on top of the cobbling, but this cannot be proved or disproved on the evidence that we have obtained from the excavation.²¹ In Plan 2 the

²¹ The disturbed remains from the lower excavated part of slipway 3 are still under study.



FIG. 27. Curving end of central ramp of slipway 4, final phase, from the west.



FIG. 28. Western end of wall 3, from the south.



FIG. 29. Level with traces of burning and ash found on slipway 4, from the south.

continuous lines show the certain remains of the side-walls of ramps; the dashed lines are a certain reconstruction; and the dotted lines are hypothetical, indicating ramps of uncertain form continuing to a length of 35 m—the probable minimum length for slipping a trireme.

THE ROOF

The shipsheds had a tiled roof with a shallow slope, probably with a separate, horizontally ridged roof over slipways 1–2 and 3–4, descending in steps from west to east.²² The evidence allows us to reconstruct two roofs, corresponding to the two phases of the building: the later, of the second half of the fifth century, of Corinthian type; the earlier, of the end of the sixth century/first quarter of the fifth century, of Sicilian type. This was the most important discovery of the 2005 season.

²² Blackman and Lentini 2003, 397 fig. 24 shows an alternative reconstruction of a ridged roof over each slipway: the important point that we wished to illustrate was the additional clear width, which would be provided

by timber roof supports rather than a solid wall of the same thickness as the socle (though we now consider the timber post alternative unlikely); Blackman 2004; see Pakkanen's reconstruction below.

CORINTHIAN TYPE ROOF

That the *neorion* of Naxos had a roof is certain: proof of this is provided by the sand ramps, which could not have been preserved in the open air. Another proof is the large quantity of fallen tiles found along all the slipways.

In 2001 in shipshed 4, a mass of fallen tiles was found along the inner side of wall 5, both pantiles and pentagonal cover-tiles which belong to the latest roof. It was possible to reconstruct a pantile of 84.50×55.7 cm, with flanges 6.5 cm high and 5.5 cm wide. The module as well as the weight of the tile are very large. The roofs of the fifth-century houses at Naxos generally have tiles $c.70 \times 40$ cm. Pentagonal cover-tiles are attested in the town, but in much smaller quantity than the cylindrical (Blackman and Lentini 2003, 414). Fragments of pentagonal cover-tiles and of equally large pantiles are also attested elsewhere in the shipsheds, in smaller quantity. Such data may be incomplete, but allow us to restore a roof of Corinthian type, but with cylindrical ridge tiles—the only ones so far found in the dockyard. For this type of roof we have so far found no evidence of any type of decoration.

SICILIAN TYPE ROOF

A considerable number of antefixes, a small quantity of architectural terracottas, and in addition a large number of cover-tiles, all discovered in all slipways, attest an earlier phase of the dockyard roof of Sicilian type. Crucial evidence for this was provided by discoveries in slipway 3. In its upper part, between the top of the sand ramp and the back wall of the shipshed, in a small irregular pit, two fine examples were found of Silenos antefixes (**A1–2**) (FIG. 30) of the earlier ‘plaque’ type (FIG. 31; cf. Pelagatti 1965, 80–89 and 1977, 51–2, pl. i. 1–4); and not far away, almost against wall 3 and close to the north-west corner of the shipshed, a strange alignment emerged: it started with a lateral geison (**B29**) with remains of decoration, and continued with pairs of long cylindrical cover-tiles (**C40–7**) placed one on top of the other (FIG. 32), which terminated at the geison in a tile bearing a perfectly preserved Gorgon antefix (**A15**) (FIGS. 33–4), thus simulating the slope of the roof.

In slipway 3 the find contexts of Gorgoneia **A18** and the lower fragments of **A19** are notable. The first was discovered inside a pit dug very close to the southern side of the upper sand ramp (FIG. 35); the fragments of the second one were located along the edge of the cover-tile alignment (FIGS. 36–7).

Our initial reaction was to suppose that the whole complex related to remains, devoutly buried, of the roof of a building preceding the dockyard; but now, after more careful examination, we think it possible to attribute this evidence to an earlier phase of the dockyard, datable to the late sixth century. We must, however, point out that the level contains material from the late sixth to early fifth century. Possibly the Naxians, when they rebuilt the shipsheds (phase 2) on their return to Naxos, deposited as a memorial a section of the earlier shipsheds (phase 1), which could well have been destroyed by Hippocrates in 492.

CATALOGUE

The following catalogue contains architectural materials discovered during the excavation campaigns conducted between 2001 and 2006. Surprising in view of the context in which



FIG. 30. (a) Type A Silenos-mask antefixes A1-2 from slipway 3; (b) Antefix A1, rear view.



FIG. 31. Antefixes **A1** and **A2** found buried in a pit in the upper part of slipway 3.



FIG. 32. View from the south-east of the strange alignment composed of cover-tiles (**C40-7**) at the foot of wall 3 in slipway 3.



FIG. 33. End of the alignment, formed by a fragmentary geison (**B29**) and a Gorgoneion (**A15**).



FIG. 34. Detail of Gorgoneion **A15**, as found.



FIG. 35. Detail of Gorgoneion **A18**, buried in pit close to the southern side of ramp 3, from the east.



FIG. 36. Fragment of Gorgoneion **A19**, found close to a cover-tile of the alignment.



FIG. 37. Another fragment of Gorgoneion **A19**, laid against a cover-tile, very close to the end of the alignment.

they were found, since antefixes, and more generally architectural terracottas from similar harbour installations, are rare,²³ the repertoire comprises the following groups:

- (A) antefixes (**A1–28**),
- (B) architectural revetments (**B29–39**),
- (C) cover-tiles (**C40–7**) and ridge cover-tile (**C48**).

(A) ANTEFIXES

When the first examples were found in 2001, we were surprised and somewhat puzzled; now, in the light of the repertoire that has been collected, we see that they constitute an essential element for the reconstruction of the earliest phase of the roof.

Of the twenty-eight antefixes recovered by the excavations, fourteen are of Silenos-masks (**A1–14**) and thirteen of Gorgon-masks (**A15–27**): thus an almost equal number. One sole example (**A28**) is of plaque type with indecipherable traces of its decoration in brown paint

²³ Cf. Cavallari 1891, 64 for a palmette antefix (Museum of Syracuse N8475) from the Syracuse dockyard.

(perhaps a palmette?). The type is represented in Naxos by very few examples, some with obscene representations of Silenos.²⁴

The antefixes are attested in almost equal quantities between the slipways, with the exception of slipway 4, where only two antefixes were found (**A25–6**). Six antefixes were found in slipway 1 (**A6–8**, **A16**, **A21**, **A22**), eight in slipway 2 (**A3**, **A9**, **A10**, **A12–14**, **A23–4**) and eight in slipway 3 (**A1**, **A2**, **A4**, **A11**, **A15**, **A18–20**). Antefixes **A5** and **A27** were recovered, however, from the area adjacent to the northern elevation of wall 1: an area probably used as an open-air slipway (Blackman and Lentini 2003, 394); and **A17** was found outside the dockyard, far behind the back wall, in the area corresponding to slipway 4.

The distribution of the antefixes on the ground, like that of the architectural revetments described below, with its slightly greater concentration in slipways 2 and 3, may provide useful information about the character of the first roof.

Antefixes of Silenos-mask type

The Silenos-mask was very popular at Naxos from the end of the sixth century BC, and represents the image most widely used in antefixes, one of the more particular creative products of the colony.

The link between Silenoi and Dionysos is clearly shown by the coinage of the city. The crouching Silenos on the famous tetradrachm (Cahn 1944, 42–9, 55–6, pl. iii. 54, R45) is associated with the head of Dionysos on the obverse—traditional image at this centre of viticulture. The importance of the cult of the god in the city, and the mythological origins of Silenoi, traced back to the island of Naxos (Hedreen 1992, 67–103), are useful arguments in favour of the Cycladic roots of the colony (Guarducci 1985, 22; Pugliese Carratelli 1992, 403–4). Mount Etna, which would have dominated the landscape of the ancient colony, may be an additional reason for the wide distribution of the image of Silenos in the colony, since a link between Silenos and Mt. Etna has been highlighted convincingly through the representations of the daemon on the coins of Katane and Naxos by Gitler in the catalogue of a recent exhibition in Jerusalem (de Callatay and Gitler 2004, 17–18).²⁵ A lesser-known tradition portrays Silenos as the old servant of Polyphemos, the one-eyed Cyclops who lived in a large cave at the foot of Mt. Etna, an individual character in Euripides' satyr-play *The Cyclops*.²⁶

Types A–C of Pelagatti's classification are attested. The frequent repairs evidently required by the dockyard roof provide a plausible explanation of this, and may be regarded as indicating a second or intermediate phase of the roof, with types B and C Silenos antefixes along the eaves.

Type B of the first decades of fifth century BC is represented by four examples (**A6–A9**), three from slipway 1 and one from slipway 2 (FIG. 40), and type C, datable to the central years of the fifth century BC, by six (**A10–14**), mostly from slipway 2 (FIGS. 39–40).²⁷ **A13** is notable for its brilliant colours, whereas **A10** is representative of the type because of its mouth with

²⁴ Lentini 1995, figs. 1–3, 7–9 with direct comparison with some specimens from Gela (Winter 1993, 279).

²⁵ On that link, and generally on the importance of Mt. Etna in the myth, see also Caruso 2007, 140.

²⁶ He speaks the prologos (1–40), and is the father of the Satyrs who form the chorus (27).

²⁷ Pelagatti 1965, 89–96, nos. 15–32 (type B), 33–6 (type C). For type C, see also Pelagatti 1977, 53–4, pl. II.1–2; Lentini 1996, 646, no. 183 (specimen with well-preserved polychromy).



FIG. 39. Type C Silenos-mask antefixes A10 and A13.



FIG. 38. Type A Silenos-mask antefixes A3-A5.

partly open lips, showing the teeth, in an animal-like grin (FIG. 39). The number of antefixes belonging to the earlier type A is limited: only five examples out of an overall fourteen, of which three (**A1–2**, **A4**) (FIGS. 30, 38) are from slipway 3, one (**A3**) from slipway 2 (FIG. 38) and one (**A5**) from the immediately adjacent area to the north of the dockyard (FIG. 38). It is noteworthy that the specimens of type A are concentrated in slipway 3. They seem to be attributable to the earliest phase of the roof, which probably dates to the late sixth century BC. To judge from the external appearance of their fabric and from their technique, characterized by a thick cream-coloured slip and by brilliant polychromy, antefixes **A1–5** (FIGS. 30, 38) would seem to be products of a single workshop at Naxos, even if they probably do not derive from the same mould. The appearance of the clay is very close to that of the lateral geison **B29**.²⁸

In quality and state of conservation, **A1–2** are exceptional among the antefixes of Silenos-mask type so far discovered in Naxos (FIG. 30).²⁹ Found, as we have seen, almost intact within a small pit at the foot of the rear wall of the building (FIG. 31), in clear association with a late-archaic level, the two specimens seem to belong to the earliest production of the type; their evident links with East Greek terracotta sculpture are corroborated by their close affinity, as Pelagatti (1977, 52) has pointed out, with the terracotta mask from Samos in the British Museum (Higgins 1954, 142, no. 523); and the head of a Silenos from Thasos may be a parallel, despite its grotesque features (Grandjean and Salviat 2000, 248, no. 5, fig. 175). The shape of the antefix itself, in the form of a rectangular plaque tapering towards its base, and with the mask crowned by a flange (FIG. 30 *b*) surmounting the attachment to the cover-tile, clearly shows the Ionic derivation of the type. The two specimens **A1–2** attest better than any others the fundamental role that vivid polychromy played in the figural representation; it is only thanks to the colours that minor, but distinctive variations are produced in the facial features. Great attention is also devoted to the adornment, disc earring, and taenia, which continuously change and probably made it possible to distinguish each mask from the next on the same roof. This distinctive character agrees with the ‘portrayal’ of the Silenos-masks as adorned with polychrome make-up, provided by the one fragment (F 78a Radt, 11–12) of Aeschylus’ satyr-play *Theoroi and Isthmiastai*, which Marconi (2005, 77) has recently highlighted precisely in relation to the Sicilian Silenos antefixes.³⁰

Gorgon-mask antefixes of ‘flanking snakes’ type

The discovery of Gorgon-mask antefixes, and their quantity, represents a novel feature in the architectural terracotta decoration of Naxos, where the figure of Silenos has tended to predominate. Abundant evidence of the Gorgoneion, used both as ridge-beam revetment and more frequently as ridge-tile ornament and central akroterion, had been provided by the urban and suburban sanctuaries of the colony and to a lesser degree in the habitation area too.³¹ The evidence regarding regular antefixes with Gorgoneia, by contrast, had so far been

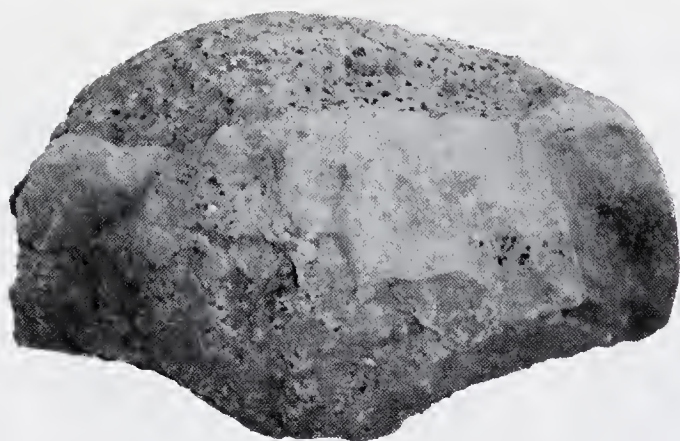
²⁸ No laboratory analyses have been conducted yet; they would be very useful.

²⁹ Of the c.30 examples of type A Silenos antefixes so far found, only very few specimens preserve the polychromy. Among them we point out an example from a votive context of the late 6th c. BC (Lentini 1996, 639–40, no. 59), which is very close to our **A2**.

³⁰ However, we do not agree on the low chronology of

the beginning of earlier Naxian type A Silenos antefixes to be after Aeschylus’ first stay in Sicily, i.e. post 478 BC. This chronology seems to conflict with the archaeological evidence from Naxos dated to the last decade of the 6th c. BC. The few examples of Silenos antefixes of type A from the 5th-c. BC levels of the city may indicate the end of the type.

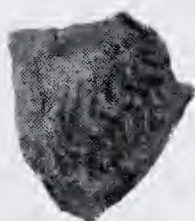
³¹ Lentini 2006, 423–5, FIGS. 41.41–3 (fr. of archaic,



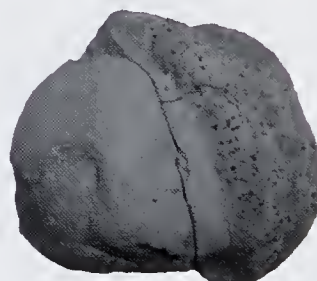
No. A6



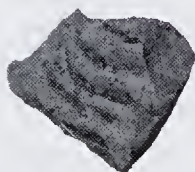
No. A11



No. A7



No. A12



No. A8



No. A9



No. A14

FIG. 40. Type B (A6–A9) and Type C (A11, A12, A14) Silenos-mask antefixes.

meagre, and so the discovery of Gorgon-mask antefixes on the dockyard site represents a significant addition to our knowledge of the type. Altogether thirteen antefixes with Gorgoneia, whether complete or fragmentary, have been found within the slipways of the dockyard. They can be divided into at least two types, and one variant, all characterized by flanking snakes. The discoveries made in the upper zone of slipway 3 were particularly important for differentiating and dating both types. The stratigraphic data from within the slipway—antefixes **A15**, **A18**, and **A19** belonging to the same level—would suggest a parallel use of the two types, although type 2 probably commences earlier.

The repertoire thus created provides an opportunity to re-examine the typology of Gorgon-mask antefixes of the type with 'S-shaped serpents' (Van Buren 1923, 81) or 'flanking snakes' (Kentfield 1990, 268). The type has recently been defined anew by Pelagatti (2006, 438–41) in a perceptive study, on the basis of the fragments from Naxos and, significantly, from Francavilla di Sicilia, in the Alcantara valley, the natural hinterland of the colony.

It is important to start by saying that the types so far defined show close affinities with those of Magna Graecia and more particularly with the series of Gorgoneia from Taras, from which they probably derive.³² The problem of what role Naxian workshops played in the diffusion in Sicily of this type of Gorgoneion with S-shaped snakes, remains open. It would seem to have been a leading one, to judge from the diffusion of the type that Pelagatti (2006, 440) has described.

Type 1 is represented only by the intact specimen **A15** (FIG. 41) and by the fragmentary antefix **A16**. Of the types so far defined it is probably the latest, as suggested by its form: it is distinguished by an almost circular plaque and by a compact hairstyle, animated by a thick convex wave representing the row of curls framing the smooth and unwrinkled ogival brow (FIG. 41). There are many analogies with Silenos antefix type A in the treatment of the hair, and, as with the Silenos, the polychromy is required for the Gorgon's characterization, as well as the tongue.

The round face, contoured along the lower margin by a black painted line (beard?), is represented with a short section of neck; unusually the nose is almost regular. The pronounced crescent eyebrows and large contoured almond eyes, shown in slight relief, are painted dark brown (FIG. 41).³³ The mouth seems rather open in a smile, despite the short fangs which do not protrude over the lip. Also, the pendent tongue is slightly projecting and its rendering is naturalistic. Nothing is frightening in this Gorgon except the snakes.

The snakes are the characteristic feature of the type. The Gorgon-mask is flanked, and its rotundity accentuated, by the coils of two matching pairs of snakes. The upper pair rears perpendicularly to the sides of the face; the heads are turned horizontally below the small, very schematic ears and protrude slightly from the edge of the plaque. The lower pair, by

wide, probably round, pedimental Gorgoneion from sanctuary beyond the Santa Venera stream); Pelagatti 1984–5, 680–3, figs. 1–2, pl. cxxxviii.1 (early classical Gorgoneion of ridge tile from urban shrine F). At least eight unpublished examples of ridge tile Gorgoneia come from the sanctuary beyond the Santa Venera stream; another example of 'Corona of Snakes' type comes from the town (stenopos 11), from recent excavations (Lentini forthcoming).

³² Van Buren 1923, 81, 137–144, figs. 55–61; Laviosa 1954, 229–43 (antefixes from Taras).

³³ The Gorgon antefix from Naxos inv. 450 of 'serpentelli a 8' type of Pelagatti's classification (2006, fig. 43. 9) can undoubtedly be associated with type 1. This example, a fragment of the upper part of the mask, in fact is almost identical to **A15**. The fragments of Gorgon antefix inv. 572, 573 (Pelagatti 2006, fig. 43.10a–b), on the other hand, are attributable to the later type 2 with single snakes at the sides and hair in beaded strands hanging down on either side.

contrast, is smaller: the facing heads are flat and triangular; the coiled bodies are horizontally arranged at the base of the plaque, closing the composition. The representation of the more prominent upper pair of snakes is precise and meticulous: their bodies are larger, tubular, and flecked in black. Many details of the treatment of the head can be deduced from **A15**, where the triangular shape of the head of the snake to the left is well preserved, retaining its minute and vivid characterization (FIG. 41). It is shown frontally, in contrast to bearded snakes current in this type of antefix.³⁴

Type 2 is characterized by a semi-elliptical plaque and is probably slightly earlier than type 1 (FIGS 42–3). Most of the specimens discovered in the dockyard (**A18–27**), and distributed in all its slipways, belong to this type. But the appearance of type 2 remains hypothetical as regards the hair arranged round the forehead, because of the generally fragmentary state of the items and since **A18** was found almost intact, but is broken off round the top of the head, and so lacks this part of the hairstyle (FIG. 42).³⁵

The type has been conjecturally—combining elements of **A18** (FIG. 42) with **A19**, **A21**, and **A23** (FIG. 43)—restored with spiral or corkscrew curls arranged, with central parting, in two superimposed rows round the forehead, and falling to the sides of the neck in four short tresses indicated by vertical rows of ‘bead-locks’.

As is well shown by **A18** (FIG. 42), the type is in general distinguished by the more plastic treatment of the face, which is characterized by the usual furrowed brow, in some cases emphasized by black paint (for example, **A21**, **A25**) (FIG. 43), by large well-delineated eyes, by a squat nose with dilated nostrils, and by a broad grinning mouth with gnashed teeth, short fangs, and pendent tongue. The general aspect is frightening and more orthodox than type 1, perfectly in line with the character. The two snakes, one on either side, are coiled vertically; their lower part is wound round—or rather superimposed over—the hair, while their upper part lies horizontally with the head placed below the Gorgon’s ears which are pricked up and represented in a naturalistic manner as shown by examples **A19** and **A23** (FIG. 43).

An example from past excavations carried out in the area outside the dockyard to the west is in size and modelling very close to **A19** (FIG. 44).³⁶ It may give a precise indication of the snakes portrayed with head in profile clearly protruding from the slab.

The fragmentary antefix **A17** (FIG. 42) is particularly important because it may be considered a variant of type 1 and well illustrates the transition from type 2; for this reason it is included in the catalogue, although it comes from outside the dockyard. The technique and surface quality of the fabric are similar to those found in **A15**. The uniqueness of **A17**, otherwise very similar to **A15** in its modelling, consists in the hairstyle that crowns the flat and unwrinkled brow. Both the spiral curls and the compact mass of hair furrowed by radiate incisions co-exist in it. The closest comparison for this hairstyle is furnished by a specimen in the Museum of Syracuse, of uncertain provenance (acquired by Paolo Orsi), which Pelagatti (2006, 440, FIG. 43. 13) has recently indicated as the prototype of the ‘so-called Francavilla di Sicilia’ variant. Though the smallness of the fragment makes it difficult to trace it back to a

³⁴ See e.g. a specimen from Camarina (Van Buren 1923, 142, no. 26).

³⁵ It is important to point out the identity of diameter and technique between the cover-tiles of **A15** and **A18** and **C40–4**, and more particularly **C43** (FIG. 47): evidence

that confirms that these elements belong to the same roof (cf. below).

³⁶ Inv. 2499. Naxos 1989, Trench Q9 /45. H. (max.) 10.5; W. (max.) 11.2; Th. 1.5.



No. A15

FIG. 41. Gorgoneion **A15** (front and side views, and detail of the snake).

bearded type resembling that attested at Francavilla di Sicilia, **A17** undoubtedly remains indicative of Naxian production of the type.

(B-C) ARCHITECTURAL REVETMENTS AND TILES

As with the antefixes, the distribution pattern of the architectural terracottas in the Naxos dockyard is almost uniform, with five fragments (**B29**, **B32-5**) from slipway 3, four (**B36-9**) from slipway 2, and two (**B30-1**) from slipway 1 (FIGS. 45-6). Slipway 4 alone yielded no specimen of architectural terracotta.

The geison revetment fragment **B29**, with its plaque that retains its complete width, belongs to the lateral revetment (FIG. 45). On the basis of its decoration, a single guilloche with large ten-petal rosette inside the dentate ring of the crossing, which is closely matched at Naxos by examples from the south-western sanctuary (Ciurcina 1977, 76, no. 7, pl. iv. 3), it is possible to

reconstruct the vertical plaque with a lower double roll c.24 cm high (FIG. 44). The minimum gradient of the roof can be measured as 18° (see the profile of the revetment in FIG. 45).

Geison **B29** differs greatly in technique and in decoration from the other geison fragments **B30–8**, but this apparent disparity would not necessarily preclude their belonging to the same roof.

Examples **B30–8** are characterized by a double guilloche with solid disc with central dot at the crossing and lotus with probably six petals (FIG. 46). Fragment **B31** is slightly different because of the cross drawn inside the disc (FIG. 46). By visual examination one can distinguish two different fabrics: one characterized by a reddish micaceous clay with volcanic particles, the other by a yellowish-grey clay without mica and with ground grains of lavic stone. The slip overlies a wash of levigated clay.

From the fragments—most belong to the lower part with only **B38** (FIG. 46) belonging to the upper part—it is possible to reconstruct a plaque with upper single roll and lower double roll. On the basis of the decoration, its height can be calculated at c.27 cm (FIG. 46); so it would have been close in size to **B29**. On the other hand, there is nothing to show or to determine to what revetment these plaques might have belonged, whether lateral or frontal. There are some clues, however, that would seem to favour the hypothesis that **B30–8** belonged to the raking geison revetment of the pediment of the same roof to which **B29** belonged. In this regard it may be pointed out that the combination in the same roof of lateral geison revetment with single guilloche and a raking geison with double guilloche is attested elsewhere at Naxos (Lentini 1997, 129, FIGS. 4–5). The close resemblance in technique observable between fragments **B30**, **B33–7**, and **B39**, the latter probably identifiable with a fragment of raking sima (FIG. 47), is consistent with such an hypothesis. In spite of the fragmentary nature of **B39**, at least part of its decoration can be reconstructed: on the upper fascia, interlocking black crossing meander framing red panels with reserved quatrefoil inside, and on the cavetto, a frieze of lyre-shaped leaves with lotus flower buds springing from small volutes or more probably palmettes inserted in the interstices (FIG. 47). The sophisticated frieze pattern (Wikander 1986, 20–1) is widespread on the Naxian terracottas. The closest parallels are, in fact, at Naxos with some fragmentary specimens from the south-western sanctuary (Ciurcina 1977, 75, no. 6 pl. iv. 2, and esp. 79, nos. 30–1, ix. 3–4), and more generally with an earlier complete raking sima from the same sanctuary (Ciurcina 1977, 76, pl. v. 2–3; Wikander 1986, 40, no. 44, fig. 11). The type could be contemporaneous with the Ionicizing open-work anthemion sima.³⁷ The more general parallels with the raking sima of the second type from Temple B at Himera and above all with a lateral sima from Monte San Mauro,³⁸ would suggest a dating of the sima from the dockyard to the late sixth century BC.

The painted cover-tiles **C40–7** are cylindrical in form with a narrow diameter in relation to their length. Undoubtedly they belong to the same roof, as is shown by their dimensions and by FIG. 48, where **C40–2** and **C44** are easily superimposed. The remains of the antefix slab on **C43** and those of the attachment strip to the slab on **C44** may identify them with eaves-tiles. Their length is shorter than that of **C40–2**: 71 cm against 83/4 cm.

They were all discovered in the upper part of slipway 3 in a deposit (FIGS. 32, 35) that is, as

³⁷ Pelagatti 1964, 161–2, FIGS. 36, 38–9; Ciurcina 1977, 78, no. 27, pl. viii; Winter 1993, 277. On the sima's Ionicizing character: Barletta 1983, 23, 27; contra: Wikander 1986, 25.

³⁸ Wikander 1986, 37, no. 20, fig. 9 (Himera), 39, no. 35, fig. 10 (Monte S. Mauro). These simas belong to phase 3 (550–480 BC) of Winter's classification (1993, 276).



No. A 17



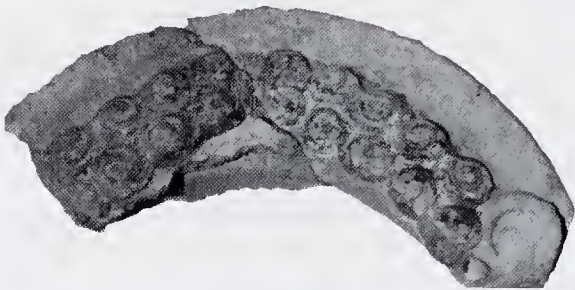
No. A18

FIG. 42. Gorgoneia **A17** (front view) and **A18** (front view and view from above).

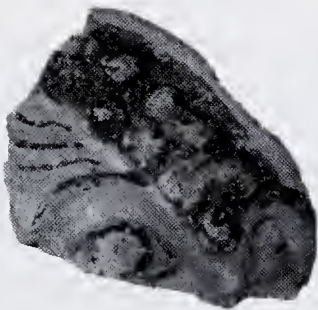
we have seen, puzzling in many respects, but that confirms their belonging to the same roof as the antefixes with Gorgoneion **A15**, **A18-19** (FIGS. 41-3) and those with Silenos-masks **A1-2** (FIG. 30), as well as the above-mentioned geison revetment plaque **B29** (FIGS. 32-3, 45).

This excavation context leaves no doubt that all these terracotta fragments belong to the same roof. The (truly unusual) association of Silenos-mask with Gorgon-mask antefixes on the eaves of the long sides of the same roof would thus be attested for the first time at Naxos. The almost exact numerical parity between the examples of the two types of antefix discovered—fourteen of the Silenos-mask type, thirteen with Gorgoneia—would be consistent with such an association. In the reconstruction (see below, p. 362; FIG. 56) we have chosen the more gracious and benevolent Gorgoneion **A15**, because of its good preservation and because of its remote likeness to the maiden-companions of the Silenoi—the Maenads.

On the basis of the length of the complete specimens **C40-2** we may reconstruct a very long pantile, very close in size to that used in the dockyard's second, Corinthian roof (cf. above, p. 323).



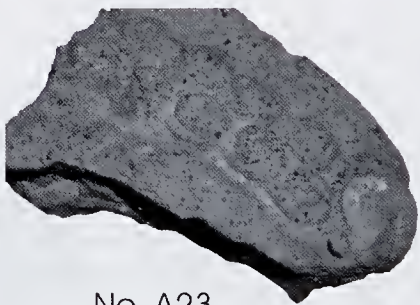
No. A19



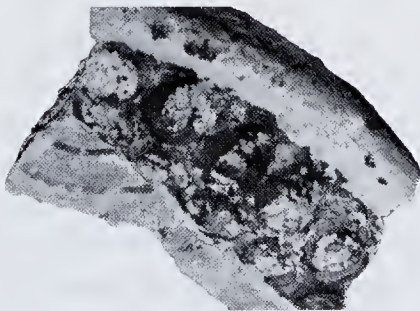
No. A21



No. A26



No. A23



No. A25



No. A27



No. A20

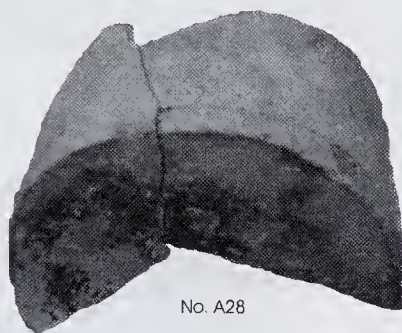


No. A24

FIG. 43. Type 2 Gorgoneia flanked by single S-shaped snakes (A19-21, A23-7).



Gorgoneion fragment inv. 2499



No. A28

FIG. 44. Antefix found in 1989 west of the dockyard and slab type antefix **A28**.

The painted strip on the tiles is an indication of the colour of the roof surfaces, as at Morgantina (Kentfield 1990, pl. 43 *b*). Apart from the tiles **C40–7**, numerous fragments of similarly painted roof-tiles were found within all the slipways. The sides of the ridge tiles also seem to have been painted brown, to judge by some fragments like **C55** (FIG. 48), whereas no example of painted eaves pantile has been found among the large quantity of tile fragments found within the dockyard building. No further decoration on the roof sides would therefore seem to have accompanied the antefixes, contrary to what is commonly attested in Sicily and at Naxos itself (Winter 1993, 280).

A. ANTEFIXES

Silenos-masks

Type A

A1 Inv. 2771 (FIG. 30)

Slipway 3, Trench AG/2005. US 22/340.

Complete with fragment of left corner rejoined. Well-preserved polychromy.

H. 19.5; W. (max.) 16.5, (base) 15; Th. 1.9/ 2.7.

Cover-tile D. (ext.) 16, (int.) 14; W. (joining strip) 6.8.

Hard, light beige clay, with many coarse volcanic particles. On the surface cream slip applied by brush on the levigated clay wash. Black and diluted black glazes. Made from fresh mould.

Head curved on a rectangular slab, with thick hair coming out from taenia, around the short forehead, dark-painted, strongly arched brows, round eyes



FIG. 45. Lateral geison **B29** with single guilloche (view, profile and drawing).

outlined in black, squat nose, long horse's ears with ear-ring of the ring type with short pendant, dark flowing beard indicated by rippling lines. Long, straight moustache on the mouth with full lips. Wavy incisions on the long hair on the sides of the mask and on the beard. On the taenia a chain of triangles outlined in black with central dots.

Late 6th c. BC.

A2 Inv. 2772 (FIG. 30 a)

Same provenance as **A1**.

Restored from five fragments, missing small parts of the slab base and of the right ear with the corresponding upper part of the hair. Well-preserved polychromy.

H. 19.5; W. (max.) 16; Th. 1.9/3.2.

Hard pinkish clay with many coarse volcanic particles and with a levigated clay wash on the surface. Dark brown and reddish glazes. Made from fresh mould.

Head similar to **A1** except for the oblique eyes, outlined in black, with a divergent squint. No decoration on the taenia; disk ear-rings with central bar.

A3 Inv. 2773 (FIG. 38)

Slipway 2, Trench Z/2004. US 37.

Fragment preserving right part of mask with remains of the hair and the beard, and with right ear and eye, mouth. Nose damaged. Well-preserved polychromy.

H. (max. pres.) 14; W. 10; Th. 1.4/1.9.

Greyish pink clay with many coarse volcanic particles and with cream slip on the surface. Black and reddish glazes. Made from fresh mould.

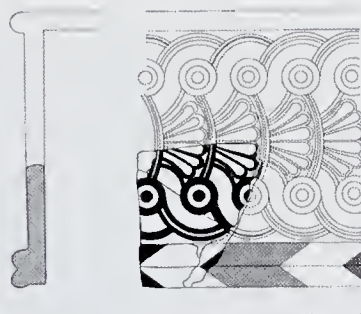
Thick hair, arched brow and round eye as **A1** Disk ear-ring with wheel motif outlined in red. Red glazed taenia and lips.

A4 Inv. 2778 (FIG. 38)

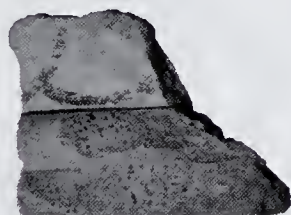
Slipway 3, Trench AK/2006. US 2/1.



No. B30



No. B31



No. B32



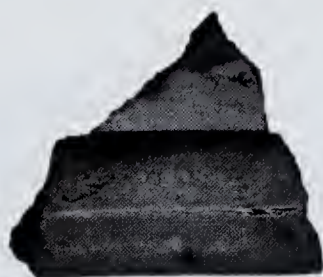
No. B33



No. B34



No. B35



No B36



No. B37

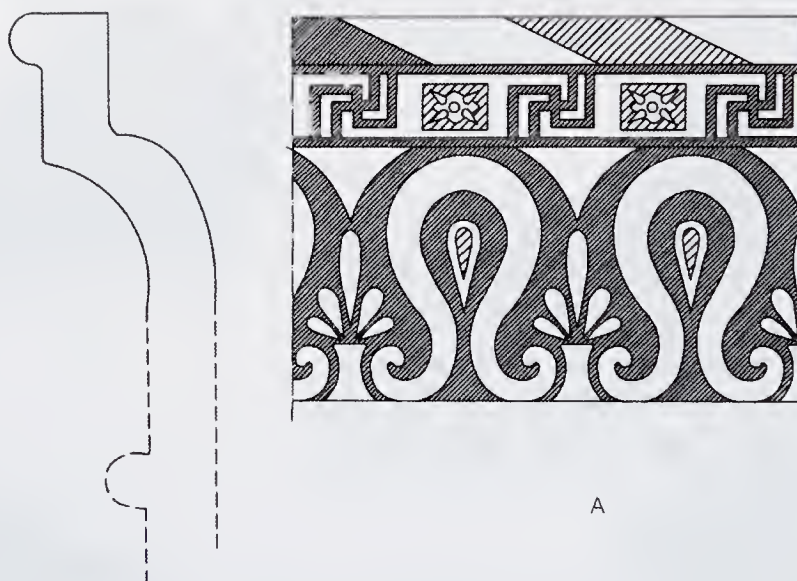


No. B38

FIG. 46. Fragments of raking (?) geisa **B30**–8 with double guilloche (with profile and drawing of **B30**).



No. B39



A

FIG. 47. Fragments of raking sima **B39** (view, profile, and drawing).

Fragment preserving upper part of head with badly preserved remains of eyes, right ear, and right cheek-bone. Traces of ash on surface. Badly preserved polychromy.

H. (max. pres.) 10; W. 15; Th. 1.6/2.00.

Pink-violet clay with many volcanic coarse particles and remains of cream slip. Black fugitive glaze. Made from fresh mould.

Series of black glazed crosses on the taenia.

Type B

A6 Inv. M 502 (FIG. 40)

Slipway 1, Trench G/2001. US 2/133.

H. 10; W. 15.7; Th. 3.2/3.7.

Blackman and Lentini 2003, 428, no. 48.

A5 Inv. 2779 (FIG. 38)

Open-air slipway, Trench L/2001. US 3/28.

Fragment of left part of slab bottom with remains of hair, beard, and left ear lobe.

H. (max. pres.) 6.8; W. 5.3; Th. 2.1/2.2.

Hard pinkish-beige clay with traces of cream slip. From mould.

Black beard, red painted hair. Disk ear-ring with central bar, as **A2**.

A7 Inv. M 496 (FIG. 40)

Slipway 1, Trench F/2001. US 21/79.

H. 7.7; W. 6.8; Th. 1.2/2.2.

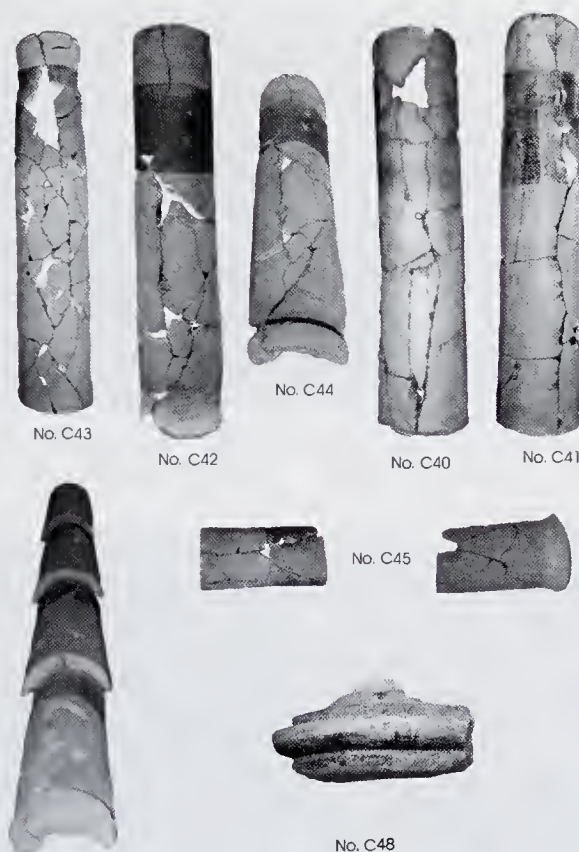


FIG. 48. Cover-tiles (C40–C45), combination of cover-tiles C40+C41+C42+C44 superimposed, and ridge-tile (C48).

Blackman and Lentini 2003, 428, no. 49, fig. 42 (B3 type).

A8 Inv. M 497 (FIG. 40)

Same provenance as **A7**

Fragment of beard (left side).

H. 4.7; W. 4.7; Th. 2.2.

Pale orange clay with volcanic particles.

C.mid-5th c. BC.

A9 Inv. 2784 (FIG. 40)

Slipway 2, Trench Z/2004. US 8/37.

Fragment of central part of beard.

H. 6.7; W. 12.5; Th. 1.3/2.

Greyish-white clay with many coarse volcanic particles; levigated clay wash on the surface.

Beard indicated by radiate strands (type B3).

C.mid-5th c. BC.

Type C

A10 Inv. 2785 (FIG. 39)

Slipway 2, Trench P/2003. US 33/37

Lower half of moulded mask restored from 2 fragments, preserving nose/mouth/beard.

H. max. preserved 9.2; W. 13.4; Th. 1.2/1.5.

Pale orange clay with fine volcanic particles; levigated clay wash on surface. Traces of black glaze. From fresh mould.

Round beard indicated by rippled radiate strands, long, straight moustache on semi-open mouth with prominent lower lip, and visible teeth.

Mid-5th c. BC.

A11 Inv. 1947 (FIG. 40)

Slipway 3, Trench 26/1983–5

Fragment of cover-tile with remains of edge of beard, solid mass of hair below raised flange, and pointed asinine left ear of the Silenos-mask.

H. (max. pres.) 5; W. (mask) 9.3; L. (max. pres.) 14.8; D. 11.5.

Pale orange clay with many fine volcanic particles and levigated clay wash.

Lentini 1982, figs. 6–7.



FIG. 49. Red pigment from ramp 3.



FIG. 50. Red-burnt area at the head of ramp 3.



FIG. 51. Blue pigment from ramp 3.

A12 Inv. 2781 (FIG. 40)

Slipway 2, Trench U/2004. US61/130.

Cranium with remains of hair and with beginning of cover-tile. Surface abraded.

H. (max. pres.) 9.2; W. 13.4; Th. (max.) (mask) 4.2, (cover tile) 1.8; L. 6.7.

Pale orange clay with coarse ground grains of volcanic stone; levigated clay wash on surface.

Solid, flat mass of hair with receding hairline round the forehead with two deep curving wrinkles, strongly arched brows indicated by couple of incisions, very pointed asinine ear.

On the cover-tile's interior surface a graffito, incised after firing, with five bars forming a sign similar to a trademark.

A13 Inv. 2782 (FIG. 39)

Slipway 2, Trench U/2004. US 57/83.

Upper half of mask with beginning of cover-tile. Well-preserved polychromy.

H. (max. pres.) 13.4; W. 12.7; Th. (mask) 1.5/4.2, (cover-tile 1.8); L. 6.7; D. (ext.) 16, (int.) 13.

Pinkish-red clay with coarse volcanic particles; levigated clay wash on surface. Black and reddish glazes. From fresh mould.

Mask applied directly to the end of cover-tile with raised flange round the solid, flat mass of hair with receding hairline round the forehead; small, very pointed asinine ears, high, wrinkled forehead and small almond eyes set obliquely below frowning brows. Red glazed interior of ears, black glazed hair, eyes and brows.

A14 Inv. 2783 (FIG. 40)

Slipway 2, Trench P/2003. US 27/32.

Fragment of upper part with remains of left ear and beginning of cover-tile.

H. 15.4; W. 11; Th. 2.2/3.6.

Hard pinkish-white clay with coarse ground grains of volcanic stone. Purified clay wash on the surface. Remains of black glaze.

Gorgoneia with flanking snakes

Type 1 flanked by pairs of snakes

A15 Inv. 2774 (FIG. 41)

Slipway 3, Trench AG/2005. US 19 /358.

H. 18.5; W. (max.) 20; Th. 1.5/2.5. Cover-tile L. 31; D. 16.4 (ext.) 12.8 (int.); Th. 1.5.

Complete with long stretch of the cover-tile. From fresh mould. Well-preserved poly-chromy.

Hard pinkish-beige clay with many fine volcanic particles; greenish-cream slip on the surface. Black and red glazes.

The Gorgoneion covers almost the whole field, leaving only a very narrow border around, and with a raised flange which gives the effect of a crown over the hair. The hair projects over a low flat forehead in a thick mass rippled by a wide convex wave. Black sharp-ridged eyebrows almost meet over the straight nose with slightly spreading nostrils. The slightly squinting staring eyes are horizontally set, almond-shaped and

outlined in black, with black pupils. The mouth slightly recessed and outlined by a narrow red rim. The teeth are small and regular, but at each side of the mouth is a pair of very pointed fangs. The pendent tongue covers the whole chin. A black painted line (beard?) runs round the cheeks and the chin. The red painted ears are placed high and extremely schematic. At each side an S-shaped snake stands out against a solid background which extends beyond the snake's head. At the bottom of the slab two smaller snakes confront each other.

Late 6th c. BC.

A16 Inv. M 499

Slipway 1, Trench F. US 21/57.

H. (max.) 15.3; W. 9/8; Th. 2.7.

Blackman and Lentini 2003, 428, no. 47, fig. 41.

Brown-reddish clay with fine volcanic particles and with cream slip. Traces of black and red glazes.

The hair is arranged in a projecting mass divided into locks by radiate grooves, and with a row of spiral curls round the flat forehead.

Late 6th c. BC.

Type 1 variant

A17 Inv. 2786 (FIG. 42)

Trench AE/2005 from W of dockyard back wall. US 2 /284.

Fragment of upper part of mask with remains of cover-tile joint on the back. Traces of ash on the surface.

H. (max. pres.) 6.7; W. 13.1; Th. 2.6.

Type 2 flanked by single S-shaped snakes

A18 Inv. 2775 (FIG. 42)

Slipway 3, Trench AG/2005. US 20/345.

Missing: hair, large part of right snake; broken away: head of left snake and large part of the lower slab sides; preserved: the beginning of cover-tile directly joined to the slab. The joint may have been surrounded by a raised flange on which the hair is probably arranged in rows of curls (cf. **A19**).

H. (max. pres.) 14.5; W. (max.) 20/1; Th. 1.3/2 (mask). D. 16.5 (ext.)/12 (int.); Th. 1.7 (cover-tile). Hard pale greyish-pink clay with fine volcanic particles. Greenish-cream slip on the surface. Only traces of black and red glazes. From a fresh mould.

Gorgoneion with quadrangular head slab. The face is round with triangular wrinkled forehead. Very plastic arched brows almost meet at the ridge of the squat nose with spreading nostrils. Large round eyes between plastic almond-shaped lids set obliquely. The cheeks are puffy, the recessed mouth has a narrow line in relief to indicate the red-painted lips; pointed fangs slightly protrude from the corners and long pendent tongue covers almost the whole chin. On each side, remains of disk ear-rings painted in red and an S-shaped snake, and below, traces of hair in beaded tresses hang down as far as the lower edge of the slab.

Late 6th c. BC.

A19 Inv. 2776 (FIG. 43)

Slipway 3, Trench AG/2005. US 15/338a + US 15/337b + US 20/345.

Recomposed from two fragments belonging together but not joined, with large part of hair surrounding the forehead and remains of cover-tile (*a*); and four fragments preserving the lower part of the mask (*b*). H. max. preserved 6.7; W. 20.5; Th. 1.4/2.4 (*a*); H. 5; D. 18/19 (raised flange); 16.5 (cover-tile); Th. 2.3/2.5 (*b*).

Hard pale red clay with fine volcanic particles. Remains of cream slip on surface. Black and red glazes.

On a raised flange the hair is arranged in a double row of spiral curls around the forehead which was low and triangular. As with **A18** the recessed mouth is surrounded by a line in relief and the pairs of fangs slightly protrude from the corners and the tongue completely covers the chin. On each side remains of lower part of S-shaped snake and below four beaded braids on the right side (on the left only 3 remain) hang down to the lower edge of the slab, which has

no border in relief to finish it off. Remains of the upper part of left ear pricked up.

A20 Inv. 2787 (FIG. 43)

Slipway 3, Trench AK/2006. US 12/5.

Gorgoneion fragment preserving only three beaded braids hanging down on the left side.

H. (pres.) 5.5; W. 4.1; Th. 1.7.

Pale pink clay with fine volcanic particles and cream slip on the surface. Black glaze.

A21 Inv. M 501 (FIG. 43)

Slipway 1, Trench F/2001. US 26/123.

H. (max.) 10.3; W. 7.5; Th. 1.5.

Blackman and Lentini 2003, 428, no. 45, fig. 39.

A22 Inv. M 500

Slipway 1, Trench F/2001. US 21/62.

H. (max.) 9.8; W. (max.) 10.2; Th. 2.5.

Blackman and Lentini 2003, 428, no. 46, fig. 40.

A23 Inv. 2788 (FIG. 43)

Slipway 2, Trench U/2004. US 8/11.

Gorgoneion fragment preserving upper left part with the left ear and remains of beginning of cover-tile.

H. (max. pres.) 6.4; W. (mask) 11; L. 4.8; Th. (cover-tile) 1.8.

Hard pale orange clay with fine volcanic particles. Red glaze.

Very similar in technique to **A19** with traces of red glaze on the curls.

A24 Inv. 2789 (FIG. 43)

Slipway 2, Trench AB/2005. US 10/162.

Gorgoneion fragment preserving lower part of mask with mouth, chin, neck, and lower part of nose.

H. (max.) 9.8; W. 13; Th. 1.3/2.00.

Hard pale orange clay with fine volcanic particles. Reddish-brown glaze. Surface abraded.

A25 Inv. 2790 (FIG. 43)

Slipway 4, Trench AD/2005. US 21/355.

Gorgoneion fragment preserving upper left side of mask with hair, forehead, and left eye.

H. (max. pres.) 5.6; W. 6; Th. 2.5.

Greyish-white clay with fine volcanic particles. Cream slip on the surface with evident traces of burning.

Close to **A21** in the rendering of the wrinkles outlined in black.

A26 Inv. 2791 (FIG. 43)

Slipway 4, Trench AC/2005. US /322.

Lower Gorgoneion fragment preserving the four beaded tresses hanging down on right side.

H. 3; W. 5.1; Th. 1.00.

Pale pink clay with fine volcanic particles; cream slip on the surface. Black glaze.

A27 Inv. 2792 (FIG. 43)

Open-air slipway, Trench 1/2001. US 7/101.

Lower Gorgoneion fragment preserving four beaded tresses hanging down on left side.

Antefix plaque type with painted decoration

A28 Inv. 2793 (FIG. 44)

Slipway 3, Trench AG/2005. US 19/313 + US 27/320

Fragment of slab with part of cover-tile.

H (max. pres.) 11; D. 15.9. Th. 1.5 (slab). L.10 (cover-tile).

B. ARCHITECTURAL REVETMENTS

Geisa

B29 Inv. M 515 (FIG. 45)

Lateral geison revetment.

Slipway 3, Trench AG/2005. US 19a/357.

Upper part of lateral geison revetment plaque preserved complete; upper horizontal plaque at angle of 108° with plain vertical plaque. Fugitive decoration.

L. 51; H. (pres.) 13 (can be reconstructed as 24 including upper and lower rolls); Th. (plain vertical plaque) 3.1; W. 22; Th. 3.1 (soffit).

Greyish-white clay with many volcanic particles; thick cream slip on surface. Black and red glazes.

Short horizontal strokes alternately black and red on the upper roll; on the plain vertical plaque remains of single guilloche with probably two strands, large central dentate ring with rosette inside with probably ten rounded petals (five preserved, painted in red outline).

Late 6th c. BC.

B30 Inv. M 495 (FIG. 46)

Raking geison revetment (?).

Slipway 1, Trench F/2001. US 27/165.

Fragment of lower right side of plain vertical plaque with double roll.

H. (max. pres.) 13; W. 10.6; Th. 2.00.

Bright red micaceous clay with many volcanic particles; cream slip on surface. Black and red glazes. Traces of diagonal band on double roll; on plain vertical plaque remains of double guilloche with two strands, solid central disks, lotus with probably six petals. Lower edge surface painted in black.

Late 6th c. BC.

H. 6.7; W. 3.00; Th. 2.5.

Pale orange-brownish clay with fine volcanic particles; cream slip on the surface. Black glaze.

Hard pale orange clay with fine volcanic particles. Clay wash on surface. Brownish glaze.

Indecipherable traces of its decoration in brown paint (perhaps a palmette?)

B31 Inv. M 506 (FIG. 46)

Raking geison revetment (?).

Slipway 1, Trench A/1998. Level 7/8.

Fragment of lower right side of plain vertical plaque missing lower double roll.

H. (max. pres.) 16; W. 11; Th. 2.6.

Pale yellow clay with many volcanic particles; cream slip on surface. Black and red glazes.

Remains of double guilloche to left with disk with cross inside and lotus with six petals

B32 Inv. M 508 (FIG. 46)

Raking geison revetment (?).

Slipway 3, Trench AG/2005. US 20/346.

Fragment of lower part of plain vertical plaque with double roll.

H. (max. pres.) 9.5; W. 7.5; Th. 1.8.

Pale yellow clay with ground grains of volcanic stone; cream slip on the surface. Black and red glazes.

Traces of the lower strand of the guilloche.

B33 Inv. M 509 (FIG. 46)

Raking geison revetment (?).

Slipway 3, Trench AG/2005. US 20/344.

Same preservation as fragment **B30**.

H. (max. pres.) 10; W. 13; Th. 2.00.

Bright red micaceous clay with many volcanic particles; cream slip on the surface. Black and red glazes.

Same technique and decoration with double guilloche with lotus as **B30**.

B34 Inv. M 510 (FIG. 46)

Raking geison revetment (?).

Slipway 3, Trench AG/2005. US 4/382 + US 10/383.

Lower part of plain vertical plaque with double roll restored from two fragments.

H. (max. pres.) 11.5; W. 21; Th. 1.9

Bright red micaceous clay with many volcanic particles; cream slip on the surface. Black and red glazes.

Same technique and decoration with double guilloche with lotus as **B30**.

B35 Inv. M 525 (FIG. 46)

Raking geison revetment (?).

Slipway 3, Trench AG/2005. US 22/316.

Lower part of plain vertical plaque with double roll.

H. 7.8; W. 9.5; Th. 2.00.

Same bright red micaceous clay as **B30** with strong traces of burning on the surface.

B36 Inv. M 511 (FIG. 46)

Raking geison revetment (?).

Slipway 2, Trench U/2004. US 11/15.

Fragment of double roll with remains of the plain plaque.

H. (max. pres.) 7.5; W. 9.5; Th. 1.8.

Bright red micaceous clay with many fine volcanic particles; cream slip on the surface. Black and red glazes. Same technique and decoration as **B30**.

Diagonal band on double roll.

Sima

B39 Inv. M 513 (FIG. 47)

Raking sima.

Slipway 2, Trench P/2003. US 45/66.

Edge of upper part restored from two fragments (*a*–*b*) belonging to the same piece, but not joining.

(*a*, roll and fascia) H. 6.3; W. 23.3; Th. 2.7; (*b*, cavetto) H. 4.4; W. 12; Th. 2.9.

Pale pink clay with fine volcanic particles; cream slip on the surface. Black and red glazes.

C. COVER-TILES

C40 Inv. M 516 (FIG. 48)

Cover-tile

Slipway 3, Trench AG/2005. US 19/370, 355.

Complete; restored from many fragments.

L. 82.5; D. 17.5/16; Th. 2.00/2.05.

Pale greyish-yellow clay with coarse ground grains of volcanic stone; with levigated clay wash on the surface. Brownish glaze.

Cylindrical in form with two different diameters: wider at the top, narrower at the bottom; with broad

B37 Inv. M 512 (FIG. 46)

Raking geison revetment (?).

Slipway 2, Trench S/2003. US 11/10.

Fragment of lower part of plain vertical plaque.

H. (max. pres.) 10; W. 8.2; Th. 2.00.

Bright red micaceous clay with many volcanic particles; cream slip on the surface. Black and red glazes.

Same technique and decoration with double guilloche with lotus as **B30**.

Remains of lower guilloche with traces of a plain disk and two petals of central lotus.

B38 Inv. M 514 (FIG. 46)

Raking geison revetment (?).

Slipway 2, Trench P/2004. US 2/94.

H. 5; W. 7.5; 2.00.

Greyish clay with ground grains of volcanic stone and cream slip.

Upper part of plain plaque with only one roll.

Remains of one strand of guilloche. On the roll, traces of painted band.

Very near to the profile of the Geloan Treasury (Wikander 1986, 50–1, no. 88 fig. 6, 14) with wide and sharp fascia and deeply concave cavetto. Diagonal band on the roll, interlocking crossing meander framing panels with quatrefoil inside on the fascia; on the cavetto, faint remains of the frieze of lyre-shaped leaves with probably palmettes inserted in the interstices.

On the back surface of the upper fascia is a graffito, incised after firing; a dotted theta.

flat edge. Broad black band (W. 21) painted at one end.

C41 Inv. M 517 (FIG. 48)

Cover-tile.

Same provenance as **C40**.

Complete; restored from many fragments.

L. 84.6; D. 18.5/16; Th. 2.00/3.5.

Reddish-pink clay with fine volcanic particles; levigated clay wash on the surface. Brownish glaze.

Broad black band (W. 23.5).

C42 Inv. M 518 (FIG. 48)

Cover-tile.

Same provenance as **C 40**.

Complete; restored from many fragments.

L. 84.5; D. 18/15.5; Th. 2.00/3.00.

Same clay and technique as **C 41**.

Broad black band (W. 20.5).

C43 Inv. M 519 (FIG. 48)

Eaves tile.

Same provenance as **C 40**.

Complete with remains of antefix slab. Restored from many fragments.

L. 72; D. 15.5/14; Th. 2.00/3.00.

Same clay and technique as **C 40**.

Broad black band (W. 15).

C44 Inv. M 520 (FIG. 48)

Eaves tile.

Same provenance as **C 40**.

Complete with slight remains of attachment strip to the antefix slab. Restored from many fragments.

L. 71; D. 17.5/15; Th. 2.00/3.00.

Same clay and technique as **C 40**.

Broad black band (W. 18).

C45 Inv. M 521 (FIG. 48)

Cover-tile.

Same provenance as **C 40**.

Two fragments (A–B) of the same tile, but not joining.

(A) L. 43; D. 15; Th. 1.5; (B) L. 24; D. 16; Th. 2.00.

Same clay and technique as **C 40**.

Broad black band (W. 14.5).

C46 Inv. M 522

Cover-tile.

Same provenance as **C 40**.

Fragment of one end.

L. 43; D. 15.5/16.5; Th. 1.5.

Same clay and technique as **C 40**.

Broad black band (W. 20).

C47 Inv. M 523

Cover-tile.

Same provenance as **C 40**.

Fragment with a raised ring relief at the point where the diameter reduces.

L. 27; D. 16; Th. 1.5.

Same clay and technique as **C 40**.

Two broad black bands of different widths (14 and 8).

C48 Inv. 524 (FIG. 48)

Ridge cover-tile

Slipway 3. Trench S/2004. US 28.

Fragment of edge with remains of cover-tile.

Orange-reddish clay with ground grains of volcanic stone, clay wash on the surface. Black glaze.

L. (max.) 12.5; W. (max.) 22; Th. 3/1.5.

On the edge, black strip; on the wide convex roll, groups of thick vertical strokes in black paint.

OTHER FINDS

Patches of red colouring were found in 2004 in shipshed 3, on the surface of the middle phase of ramp of the three phases identified, and on the bedrock of the southern side passage, c.6.80 m from the back wall. One sample has been analysed and identified as haematite: we now have the first certain ancient sample of red paint from a shipshed. Clearly ships were being painted in these shipsheds: at the stern (and bow) there would have been more room to paint the sides of the hull because of the ship's 'cut-up' or stern upswing (Blackman and Lentini 2006a, 196). The biocidal properties of haematite, like those of ruddle, must have been known to ancient shipbuilders, so that they were used as anti-fouling as well as colouring agents. Haematite was used on Ship C at Pisa (first century BC/AD); and there is the fascinating possibility of similar use of haematite already in the Late Minoan period.³⁹

Much more evidence of pigments was found in 2005, in both shipsheds 3 and 4 (FIG. 49).

³⁹ Pisa: Ship C, the oared ship named *Gull*, was painted white (cerussite) and red (haematite); Colombini *et al.* 2006, and references there. Haematite was found in LM III B 'short-necked' amphorae in Building P at Kommos; its use was not immediately clear, but it now provides

further support for the interpretation of Building P as an early form of shipshed. We are grateful for ongoing discussion with J. W. and M. C. Shaw. A find of pigments is now reported from the Minoan 'shipsheds' being excavated at Poros/Katsamba, the port of Knossos.

Traces of what seems to be the same red paint (but not yet analysed) were also found adhering to the inside of some amphora body sherds, and were presumably the contents of the amphorae. The sherds are of West Greek amphorae (MGS II type).⁴⁰ At the back of shipshed 4 some of these sherds were found close to patches of red paint on the ground. At the head of ramp 3 was a small red-burnt area lined with a circle of stones—perhaps where the paint was heated (FIG. 50). Could this have caused a local fire at the top of shipsheds 3 and 4? Also found was the first evidence of blue pigment (FIG. 51); the sample has not yet been analysed.

Provisional conclusions from a preliminary study of the pottery agree with the preliminary evidence of the roofing. Very abundant, especially in shipsheds 2 and 3, are black glazed vases (mostly cups), datable within the first half of the fifth century, and mostly Attic (see above, n. 19). Recent analysis of the finds of transport amphorae came to the same conclusions: it identified two groups of amphorae, the first datable to the late sixth/first half of the fifth century, and the second to the second half of the fifth century BC.⁴¹ The large number of transport amphorae is surprising in a dockyard. They were mostly for wine, and though many may have been reused (for water, above all), they provide good evidence for wine consumption in the dockyard, or in the ships that used it. The evidence seems to agree with the considerable number of drinking vessels—skyphoi and stemless cups—some with graffiti.

GRAFFITI

Three graffiti were found during the emergency excavations of 1981 and 1983, but the majority were found in 2001 (Blackman and Lentini 2003, 402–4, 414–18 nos. 18–21), with a very few more in 2003–6. The main group came almost entirely from a mid- to later fifth-century phase at the back of shipshed no. 1. The surprising feature of the finds in this area was the large number of BG (mainly Attic) drinking vessels, predominantly cups and skyphoi, and fifteen graffiti, of which nine are trademarks. To the remaining six we can add the three graffiti from the earlier excavations, already published (Τιταβό φίλη, Ἀρχικλῆς, and Εὐδράμων). It is now clear that the Tittabo graffito was found lower down the same shipshed (1), while the other two were found in the upper part of shipshed 3. Tittabo seems to be an exclamatory (feminine) nominative; Archikles and Eudramon are in the nominative, probably simply owners of the cups.

A drinking context is clear for two of the finds of 2001: first, a χαίρε scratched in deliberate disorder on the inside of a BG stemless cup, datable to the late fifth century; the disordered letters convey the effect of wine. A claim of ownership is clear on the outside of the base of an Attic BG cup-skyphos of the mid-fifth century: [Τ]ερίλλο ἐμὶ καὶ μό[νον κεῖνος μ'] ἔχ[ει] (vel sim.). One wonders whether this could refer to *the* Terillos, tyrant of Himera in 480 BC. Terillos wanted his cup for himself. Perhaps Terillos, like Archikles and Eudramon, performed naval duties, and had each their own identifiable cup.

The other four graffiti consist of a name and patronymic in the nominative. Δεξίλης Ἄνθο is inscribed *inside* (rare for owner's names) a BG 'Bolsal' cup, dated 440–425 BC; this would

⁴⁰ A convincing parallel is the cargo of the wreck of Tektaş Burnu (Carlson 2003, 588–9), including East Greek amphorae containing resins not intended for human consumption. Amphorae with a resinous lining and containing red pigment have been found in the Athenian Agora (Lawall 2002, 416–19). Ruddle was being

transported in amphorae in the Roman period (found on a Roman wreck off Mljet in Croatia: Radić-Rossi 2005).

⁴¹ 2001: trenches F and G; Blackman and Lentini 2003, 403, 412, 423–6, 413 fig. 29, 415–18 figs. 30–5; recent analysis: Lentini and Blackman, forthcoming b; finds of amphorae, perhaps for water: Lentini *et al.* 2006, 97–100.

fit a drinking context, but the same name and patronymic, Δεξίλες Ἄνθο, are inscribed on the wall of a West Greek transport amphora sherd, with distinctly earlier letter forms, which does not relate to drinking. The same is true of the graffito Ἡγέστρατος Τελεσάρχου (probably the same man) inscribed on already broken sherds from the wall of a West Greek transport amphora and of a jug. The last three, possibly four, graffiti certainly meet the criteria for ostraka in the wider sense, since they take account of the 'framework' of the sherd; presence of two pairs of the same name suggests a voting rather than an allotment procedure.

Drinking and naval activity have never been incompatible: compare the stone prows from the Casa del Navarca at Segesta, the stucco prows from Solunto, and Petronius, *Sat.* 30. 1–2. Activity at Naxos may have been more modest. Possible local dockyard contexts are: (i) celebration of success in slipping operations—a complicated and strenuous activity, but rather routine; (ii) drinking on guard duty—dockyard guards are well attested, and Archilochos made night duty guarding a ship bearable with good-quality wine (fr. 4 West; cf. fr. 2); (iii) simply drinking at the end of a tour of duty; any of which could have been combined with gaming.

For the simple names on cups we must think also of ownership by crew members, who may have received a wine ration (they may have dropped cups as they did arrows or at least arrowheads in the Naxos shipsheds); and for the *ostraka* some form of selection procedure must be considered: possibly, granted the context, allocation of naval duties, or quite possibly ostracism, now attested widely outside Athens: Cyrene, Megara, the Tauric Chersonese, and perhaps Argos.⁴²

ARROW-HEADS

A surprising find is a scatter of fifty bronze arrow-heads (and two iron spear-heads) (FIG. 52). They have not yet been fully studied or analysed, and detailed publication will follow. They are trilobate and fall into two main categories: with or without barbs. Most are from shipshed 3, and some from shipsheds 2 and 4; none from shipshed 1. Their exact distribution remains to be studied, but they all appear to be, not from the destruction stratum at the south end of the site, but from well stratified levels of use of the ramps. How they reached their findspot is an interesting question, still under study; but we can at least say that they derive much more probably from the warships housed in the shipsheds than from any hostile attack on land.

CHRONOLOGY

The surviving shipsheds are built on the exact orientation of the city grid plan of c.470 BC (Blackman and Lentini 2006b, fig. 4), and we dated their construction to this period or earlier, on the basis of the ceramic evidence (Blackman and Lentini 2003, 403, 409, 428, 435). We suggested that the final phase of construction (including wall 1) may be attributed to the restored democracy, when the Naxian exiles returned from Leontinoi (461/0 BC: *ibid.* 435).

One certain earlier phase of construction on the site had already been discovered in 2001 in shipshed 1: this was associated with pits partly underlying wall 1 and on the same

⁴² For the drinking context, see Lentini and Blackman, forthcoming b; cf. Prag 2006. These graffiti were presented on a poster at the 13th International Congress

of Greek and Latin Epigraphy in Oxford, September 2007, and will be published separately in full. We have benefited greatly from the comments of Alan Johnston.

orientation. A row of seven rectangular rock-cut pits contained pottery from early Archaic (seventh century) and Archaic from the lower levels, and late Archaic to the mid-fifth century BC from the upper levels, the former dating the earlier phase and the latter giving a good indication of the date of wall 1 (ibid. 409, 393 fig. 6, 399 fig. 14, 411 fig. 27). We have already acknowledged that there may have been an earlier phase of shipsheds on the site (ibid. 409).

In the 2003–6 seasons the evidence for an earlier phase has been confirmed. We cannot say precisely whether the earlier dockyard had the same dimensions as the later, but it seems likely; and it had the same basic orientation. A relevant indication is the varied building technique of the main walls of the shipsheds: especially wall 3, which adopts a version of the polygonal technique very similar to the construction technique of the city wall with very large blocks. Walls 2, 4, and 5 are also polygonal, but built of smaller individual blocks than wall 3 and very probably contemporary with it. Wall 3 is also wider, probably because it needed to accommodate a drainage channel in addition to roof timbers;⁴³ and wall 1 is more regular.

The row of pits mentioned above was probably intended to house vertical timbers, which we can now less hesitantly interpret as evidence for the north façade of the archaic phase of the dockyard; there may have been pits also under wall 2, but the evidence there is less clear. The earlier phase most probably had three slipways (2–4) with solid walls, and one (1) with an open colonnade on its north side. See the reconstruction plans for phases 1 and 2 (Plans 1–2).

The fact that the earlier phase has the same orientation is significant for the date of the city grid, as we mentioned in our introduction. There are slight deviations from the common orientation: in the back wall of shipshed 4 in at least the final phase, and in the north-west corner of shipshed 1 (but this may be the result of later rebuilding).

The back wall of shipsheds 3–4 clearly moved back westwards in the final phase: the evidence of the material finds is confirmed by the study of walls 3 and 4. Whether the back wall of shipsheds 1–2 moved back at the same time is not certain: the evidence is not absolutely clear, either way, but it is worth pointing out that the line of pits beneath wall 1 terminates well to the east of the northward projection of the likely line of the phase 1 back wall of shipsheds 3–4 (see Plan 1); and looking for the evidence in shipshed 2 would involve the destruction of the fragile remains of the sand ramp and paved side-passage of the final phase. We therefore conclude that there was probably a common line to the back wall of all four shipsheds, in both phases.

We must of course emphasize that the ramps had rather a ‘life of their own’ within the shipshed walls; we compare the off-centre narrowing of the ramps in the last years of the second phase. Ramps 3–4 do seem slightly longer than ramp 2 (and probably ramp 1). The explanation could be minor, that a new system of curving ramp heads was being tried out in shipsheds 3–4; or it could be major, that ramps 3–4 were for longer ships. The two suggested explanations are not mutually exclusive.

⁴³ One of the shipshed walls in Place Villeneuve-Bargemon at Marseilles is substantially wider than the other two preserved low walls east of it: this could be an indication that it is an end wall or that it carried a drainage channel and had a similar function to wall 3. On a second alternative there would have existed at least one wall further to the west; this would also mean that not all the documented ramp timbers were discovered *in situ*. A

wider central wall with a drainage channel would also make the reconstruction of a ridge roof covering two slipways a more likely alternative than the one used in the model at the Musée d'Histoire de Marseilles, with ridge roofs covering single slipways. For preliminary discussions, see Hesnard 1999a, 37–9 and 1999b; for an illustration of the model, see Hesnard *et al.* 2001, fig. 10.



FIG. 52. Arrow-heads and a spear-head.

For the backward move of the back wall we are inclined to look for external factors: e.g. earth movements which caused a relative rise in sea level. Possibly there was a need to house longer ships in all the shipsheds after 460; but the width remained the same in shipsheds 2–4, and only shipshed 1 was clearly made wider.

Two earlier cuttings in the rock in shipshed 1, T₂ and T₃, pre-date the last phase of the shipsheds, and seem to be unrelated (Blackman and Lentini 2003, 402, 393 fig. 6, 401 fig. 17, 402 fig. 18, 405 fig. 21).

A surprise discovery in 2005 was a burial (an adult male) inserted into the south-west corner of shipshed 2 (FIG. 53), and dated by an unguentarium to the mid-fourth century BC: this evidence confirms that the area was by then no longer in use as a dockyard. Use of the shipsheds is assumed to have terminated with the destruction of the city by Dionysios I of Syracuse in 403 BC (Blackman and Lentini 2003, 390).

Later, the shipsheds were covered by Roman housing in the late third century AD.⁴⁴ Occupation of the area continued until the eighth century.

⁴⁴ 2001 season: Blackman and Lentini 2003, 396, 397–8 figs. 11–3; we owe the dating of the Roman levels to John Hayes.

SHIPSHEDS AS MONUMENTAL ARCHITECTURE

The chronology and reconstructions of the Naxian shipsheds presented here might be regarded by some scholars of Greek architecture as controversial, and so it is worthwhile to consider why it might be useful to analyse shipsheds in relation to other monumental architecture and not 'just' in the category of utilitarian and military buildings.⁴⁵

The most obvious monumental characteristic of the shipsheds is their scale. The typical temples of the colony are approximately as wide as a single slipway but only one third of their length:⁴⁶ the total plan area of the complex consisting of four slipways is therefore more than ten times the area of a single temple. In this case, the very large size is of course not a result of building more imposing architecture than is required but rather due to the function of the complex:⁴⁷ a single slipway needs to provide space for both a ship and at least some limited space to carry out works on the hull, and the number of sheds is determined by the size of the fleet which requires housing over the non-sailing period. The sheer size of the Naxian complex requires it to be classified as monumental architecture, but as we have seen above, especially in relation to its roof decoration of the first phase, it also makes use of other aspects of the architectural language typical of Sicilian monumental building.

In civic contexts the dissemination of the stoa as a building type from sanctuaries to the agora during the Archaic period is quite well documented: the great majority of early stoai were built in sanctuaries, but a number of cases show that the type was also used in secular contexts throughout the Greek world from Sicily (Megara Hyblaia) and Africa (Kyrene) to mainland Greece (Sikyon and Athens) already before the fifth century BC (Coulton 1976, 37–8). The use of stone as building material in early stoai is quite limited, but there are two known archaic buildings with a full stone entablature: the Stoa of the Naxians and the Stoa Basileios at Athens (*ibid.* 37). Even though the traditional date of the latter structure's construction (or more likely reconstruction) in the Classical Agora has recently been shown to be problematic, the architectural members of its superstructure can quite safely be dated as archaic.⁴⁸ What is important from the point of view of this study is that the stoa shows that the architectural language first developed to monumentalize sacred architecture could also be used in secular contexts: the beginnings of this change are already visible in the archaic period. This is not very surprising considering that the function of monumental architecture in the sanctuary and the agora are partly the same:⁴⁹ in both cases the buildings are

⁴⁵ [Demosthenes] (13. 28) already lists shipsheds among other public buildings such as temples, propylaia, and stoai which all beautify a city.

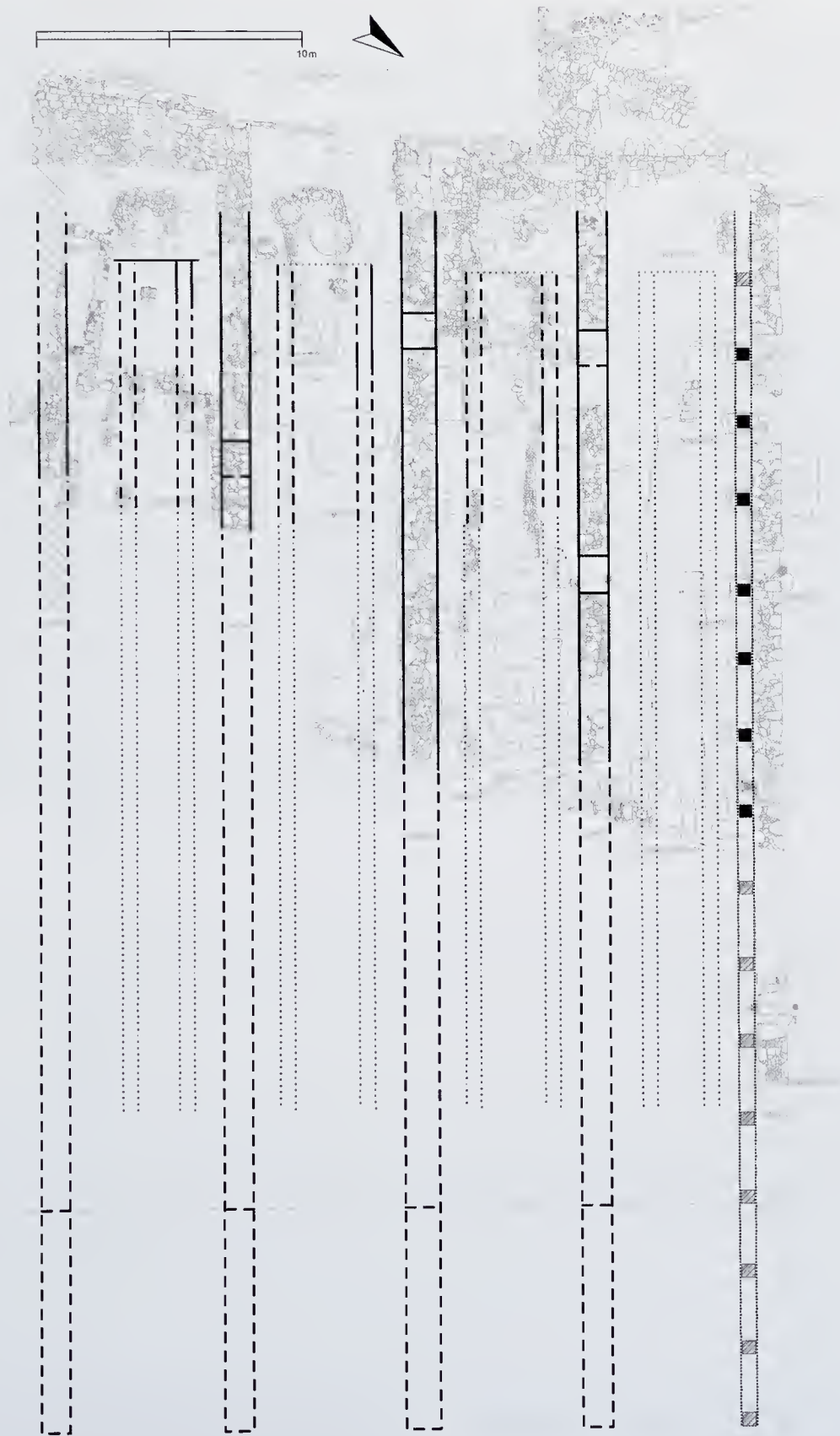
⁴⁶ The sizes of two recently excavated temples are typical: Tempio H is 7.35 m wide and 15.40 m long, Tempio I 6.60 m wide and 14.75 m long; Lentini 1998, 89–91.

⁴⁷ Hansen and Fischer-Hansen (1994, 23 n. 2) use the Bouleuterion at Miletos as an example of building an unnecessarily large civic building: the auditorium could have seated 1,200–1,500 people, but it is unlikely that the Council would have had more than 500 members.

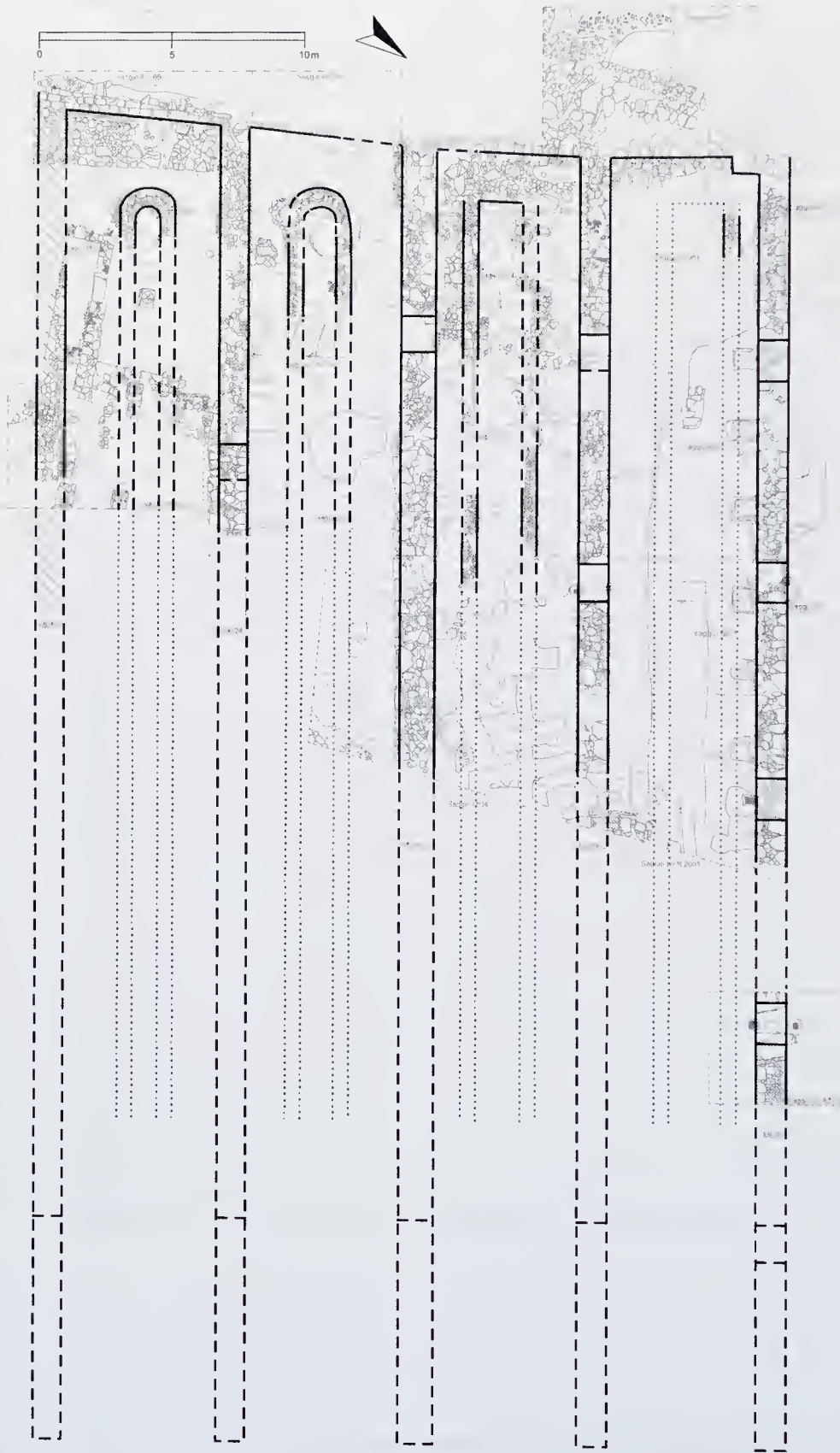
⁴⁸ The discrepancy between the architectural date (mid-6th c. BC) and the date of the archaeological material (500–480 BC) associated with the construction of the Stoa Basileios has been recently dealt with by placing the original building programme in the late 6th c. and

explaining the more recent material as a result of extensive repairs after the Persian sack (Camp 1986, 53, 100). However, we think that the discrepancy can best be reconciled by the hypothesis that the building was first built in the archaic Agora to the east of the Acropolis and then later moved to the classical one: we cannot see that the attribution of the flat mid-6th c. 16-fluted Doric capitals to the *in situ* 16-fluted shafts of the building could be seriously questioned. For the date of the architecture, see Shear 1971, 243–50 and Camp 1986, 53, even though it now seems that the most likely date for placing the lithos and building the stoa at its current site is after 480 BC (Papadopoulos 2003, 289–91). For an earlier suggestion that the stoa was moved, see Pakkanen 2002.

⁴⁹ A stoa in the agora could also have a religious function, such as the Stoa Basileios as the seat of the archon basileus at Athens: see Aristotle, *Ath. Pol.* 57. 1–2.



Plan 1. Reconstructed plan superimposed on 2005 state plan: phase 1.



Plan 2. Reconstructed plan superimposed on 2005 state plan: phase 2.



FIG. 53. Later burial in the south-west corner of shipshed 2.

expressions of the importance of the polis and the power of its ruler or ruling class. Very little difference can be detected in the building programmes of the various city-states regardless whether they were governed as tyrannies, aristocracies, or democracies.⁵⁰

THE RECONSTRUCTION

This section studies the comparative material for the use of wooden posts, rectangular pits for uprights, and mudbrick in Greek architecture. In addition to comparanda for reconstructing the shipshed complex at Naxos with various fairly unique features, some particular aspects—such as lighting and water drainage from the roof—of the three-dimensional computer model are also briefly discussed.

⁵⁰ Akragas is a good example: in the city a policy of encircling the whole city by major temples was instigated in 480 BC by the tyrant Theron, and it was funded initially from the spoils of the battle of Himera. After the expulsion of Theron's son in 472 BC, a limited democracy

was established but the building policy of the tyrants was continued, even intensified. On the historical sources, the tyrants and the democracy, see de Waele 1971, 50–61, 109–31; for a recent synopsis of the temples at Akragas, see Mertens 2006, 381–99.

WOODEN POSTS AND COLUMNS

Making use of wooden posts and columns is quite common in archaic Greek architecture. The cuttings used to raise and position wooden columns are preserved in several early temples, including the archaic temple of Athena Alea at Tegea and the temple of Hera at Olympia.⁵¹ In recent scholarship there has been a tendency to question the earlier reconstructions of Geometric and Early Archaic peripteral temples with wooden columns, leaving few relatively certain cases such as the eighth-century temple of Artemis at Ephesos, and the seventh-century temples at Ano Mazaraki and the Argive Heraion (see e.g. Mallwitz 1981; Billot 1990, 95–102; Barletta 2001, 32–9).

The fourth-century stoa at Molykreon provides a possible, though later, parallel for how the north façade of the archaic shipshed complex at Naxos could be reconstructed. At Molykreon the wooden posts were placed on stone base-slabs: the partly dressed top surface indicates that the posts were square, not circular, and had a section of c.0.60 m × 0.60 m. The interaxial distance between the posts is 2.55 m.⁵² It is very likely that equivalent structures existed elsewhere but because they were built of less durable materials they have not survived.⁵³

POST-HOLES AND PITS FOR WOODEN UPRIGHTS

The rectangular pits partly under wall 1 of the Naxian shipsheds have Greek parallels elsewhere. The rectangular cuttings east of the Panathenaic Way in the Athenian Agora have been interpreted as sockets for the uprights of temporary or semi-permanent wooden stands, *ikria*, erected for the spectators at the festival.⁵⁴ A series of rectangular pits and postholes in the Kerameikos were very probably cut for the same purpose.⁵⁵

In general, cutting a post-pit for a wooden upright seems to have been rather untypical of Greek monumental building; instead, there is a clear preference for placing a stone slab below any wooden supports. Since digging post-pits is a standard solution in wooden architecture in more forested regions and other periods,⁵⁶ the ancient Greek preference is quite possibly due to the relative expense and rarity of large wooden posts: they are still cheaper than stone columns, and the stone supports stop the ground moisture from penetrating the material and slow down the decay.

⁵¹ Dörpfeld and Schleich 1935, 179–83; in addition to Tegea and Olympia, Dörpfeld and Schleich discuss reused blocks from the old temple of Apollo at Delphi. E. Østby (1986, n. 34) notices similar cuttings at Kalapodi.

⁵² Orlandos 1924–5, parat. 63; Coulton 1976, 143, 261.

⁵³ Coulton 1976, 144 draws attention to two 3rd-c. parallels, one at the Asklepieion at Kos and the other at Thebes in Phthiotis.

⁵⁴ Thompson 1960, 332; Thompson and Wycherley 1972, 126–7; the dimensions of the cuttings are unfortunately not given.

⁵⁵ The largely rectangular pits are approximately 1 by 1 m in plan and have a depth of more than 1 m: Ohly 1965, 309–10, figs. 15, 17. For further probable pits for uprights in the area, see Gruben 1969, 36–8; Hoepfner 1976, 16–20. The Protogeometric Toumba building at Lefkandi demonstrates that the size of the pit is directly related to the depth of the pit rather than to the size of the post: the

pits for the veranda pits have a width of 0.5–0.7 m and depth of c.0.6 m, and the maximum imprint of the rectangular post is 0.30 m × 0.10 m; the central posts were circular with a diameter of 0.18–0.25 m, but the pits were c.1.45 in diameter and had a depth of c.1.4 m: Coulton 1993, 38, 41.

⁵⁶ For parallels in Roman monumental building in Britain, see e.g. the Roman tower at Nanstallon, Cornwall (post-pits 0.9 × 1.4 m and 1.0 m deep; 1.5 × 1.1 m and 0.9 m deep; 0.6 × 1.2 m and 1.4 m deep: Fox and Ravenhill 1972, 64–6); gate towers at Hayton Fort (pits 1.0 × 0.7 m, depth 0.8–1.0 m; diameter of the upright reported as 0.20 m: Johnson 1978, 65); first timber phase of the Silchester Amphitheatre (dimensions in plan 0.8–1.3 m, depth 0.5–1.1 m; size of posts from 0.22 × 0.26 m to 0.28 × 0.4 m: Fulford 1989, 19–26). For a more modern example of deep square holes for major structural timbers, see Kelso 1984, 56–80, 128–37.

There are several possible factors which could have contributed towards employing this unusual practice at Naxos:

1. The use of post-pits is relatively widespread in Sicilian and South-Italian indigenous buildings: the closest parallels are in the Motta sanctuary at Francavilla Marittima near Sybaris, where the seventh-century BC buildings with large wooden posts were replaced in the sixth century by structures with stone socles. In particular, the post-pits of the first phase of Building III are partially covered by the later walls, providing a strikingly close analogy to the north wall of the Naxos complex.⁵⁷
2. Since the shed complex is built on a slope towards the sea, the architect could have wished to introduce stronger uprights than just wooden columns standing on stone slabs. Digging holes for the posts would have made the north façade as a whole more resistant to shear forces towards the sea. A sloping entablature and roof is the only factor which could have created a real shear force in the structure. This does not necessarily mean that the roof was actually built as one continuous slope; we cannot necessarily expect that the archaic architect understood the nature of the forces in question and that the general sloping appearance of a stepped roof was for him enough for the extra precautions to be taken. Partly buried posts would also provide better resistance to expected earthquakes than traditional wooden columns on slabs. Coulton has also pointed out that digging post-pits allows the uprights to give further stiffness to the building compared to posts standing on base slabs which can only support downward vertical loads. Partially buried posts also resist the lifting forces created by strong winds which could otherwise have damaged the roof.⁵⁸
3. Since the area around Mt. Etna and the Peloritani Mountains above Taormina were known in antiquity for their timber resources,⁵⁹ protecting the posts from moisture was not, perhaps, deemed as necessary as in other parts of the Greek world.

USE OF MUDBRICK IN GREEK MONUMENTAL ARCHITECTURE

Mudbrick was widely used in Greece both in monumental and domestic architecture, and the range includes temples, altars, civic buildings, royal palaces, defensive structures, and private homes.⁶⁰ Protected from water by a roof and layer of whitewash it is also a durable building material: the walls of South Stoa I in the Athenian Agora were built of mudbrick with a stone socle, and the structure was in use from c.430–420 BC to c.150 BC when it was replaced by South Stoa II.⁶¹

The stoai with long back walls provide the best parallel to the reconstruction we have adopted here for the later phase of the Naxian shipshed with closed side walls: Coulton lists

⁵⁷ Mertens and Schläger 1983; Mertens 2006, 50–1. Building with wooden uprights was a widespread practice in South Italy and Sicily, and it is also attested at Leontinoi close to Naxos: see Mertens 2006, 18–23 for further examples.

⁵⁸ A good parallel is provided by the Toumba building at Lefkandi: Coulton 1993, 38–42, 47–8.

⁵⁹ Diod. Sic. xiv. 42. 4–5; Athenaios v. 206f. Hodge 1960, 38–42 argues that the large open spans in Sicilian and South Italian architecture are due to the use of roof

trusses, but as Coulton 1976, 162–4 points out, the more likely explanation is the availability of better timbers than in mainland Greece.

⁶⁰ For thorough surveys on the use of mudbrick and references to textual and archaeological material, see Martin 1965, 46–63; Orlandos 1966, 51–66.

⁶¹ Because the two stoai are on slightly different orientation, the west and east sides of the earlier stoa are fairly well preserved, including the stretch of mudbrick wall: Camp 1986, 122–4.

ten Greek stoai with certain or likely mudbrick walls above a stone socle, ranging from the Archaic to the Hellenistic period.⁶² The preserved stone socle of the Archaic Tempietto H at Naxos gives a rather close parallel to the polygonal masonry of the earlier walls of the shipshed complex, and the uniform height of the socle indicates that the most likely reconstruction of the upper walls is with mudbrick or rubble (Lentini 1998, 89–90, FIGS. 20, 23, 26).

THREE-DIMENSIONAL COMPUTER RECONSTRUCTION OF SHIPSHED COMPLEX

The computer model of the final phase of the shipshed complex has been produced using AutoCAD (FIG. 54). The figure presents an isometric view from the north-east with shipsheds 1 and 2 covered by roof tiles and 3 and 4 with the probable layout of the roof timbers exposed. The roof is reconstructed in three descending steps, and the dimensions of the Corinthian cover and pantiles are based on the excavated examples (Blackman and Lentini 2003, 414, FIGS. 36–8). The fit of the reconstruction on the archaeological remains and the probable scale of the shed complex compared to the preserved architecture is illustrated in FIG. 55: the top westernmost section of shipsheds 1 and 2 is superimposed on a photograph of the site taken in 2005.

Walls 1, 2, 4, and 5 are reconstructed as stepped in line with the roof, but since wall 3 needs to carry a gutter in addition to the roof timbers, it would have needed to be continuously sloping.⁶³ There is some evidence for the reconstructed stepped roof at Naxos: if it too was longitudinally sloping, the tiles at the edges would have needed to have been moulded into angles different from 90 degrees to accommodate both the slope from the roof ridge and towards the sea.⁶⁴ No angled tiles have been identified at Naxos, and the terracotta geison of the first phase of the sheds shows no signs of being adapted for a continuous slope (FIG. 56). Since the upper parts of the walls were most probably solidly made of mudbrick, the stepped roofs have the advantage of allowing more light into the cramped interiors of the sheds. The amount of available natural light could have been further increased by leaving the back wall of the complex open at the top.

CONCLUSIONS

The data from the excavation are still under study; but they clearly show the existence of two roofing systems: the first, with antefixes, datable to the first years of the fifth century BC at the latest; and the second, of mixed type without decoration, datable to the second half of the

⁶² Coulton 1976, 143: South Stoa at Didyma (c.600 BC), South Stoa I at Athens (c.430–420 BC), Stoa A at Kalaureia (late 5th c. BC), Oropos (c.360 BC), Stoa IV at Argos (4th c. BC), the 'Bouleuterion' at Mantinea (4th c. BC?), Stoa of Kotys at Epidauros (3rd c. BC), East Stoa at Thermon (probably c.275–216 BC), Stoa at Kassope (c.230 BC), and East Stoa by the Gymnasium at Olympia (2nd c. BC).

⁶³ Coulton has pointed out that in the case of Naxos it might also be possible to reconstruct a single stepped ridged roof covering all four slipways with the ridge over wall 3: the major advantage of this reconstruction would be eliminating the roof valley between slipways 2 and 3

which could have potentially been a problem in heavy rain. However, such a solution would not have been viable for shipshed complexes with more than four adjacent slipways such as at Zea (see Dragatsis 1885, esp. pl. 2).

⁶⁴ Cf. esp. the angled tile from the Zea shipsheds; the tile is published by Mette Schaldemose in Hallager *et al.* 2006, 48 no. 18; Schaldemose 2007. Henrik Gerding has extensively discussed the roof-tile shapes at the edges of continuously sloping roofs (Ancient Shipsheds in the Mediterranean: John Morrison Memorial Conference, Oxford 2–3 April 2005); cf. Gerding in Blackman *et al.* forthcoming.

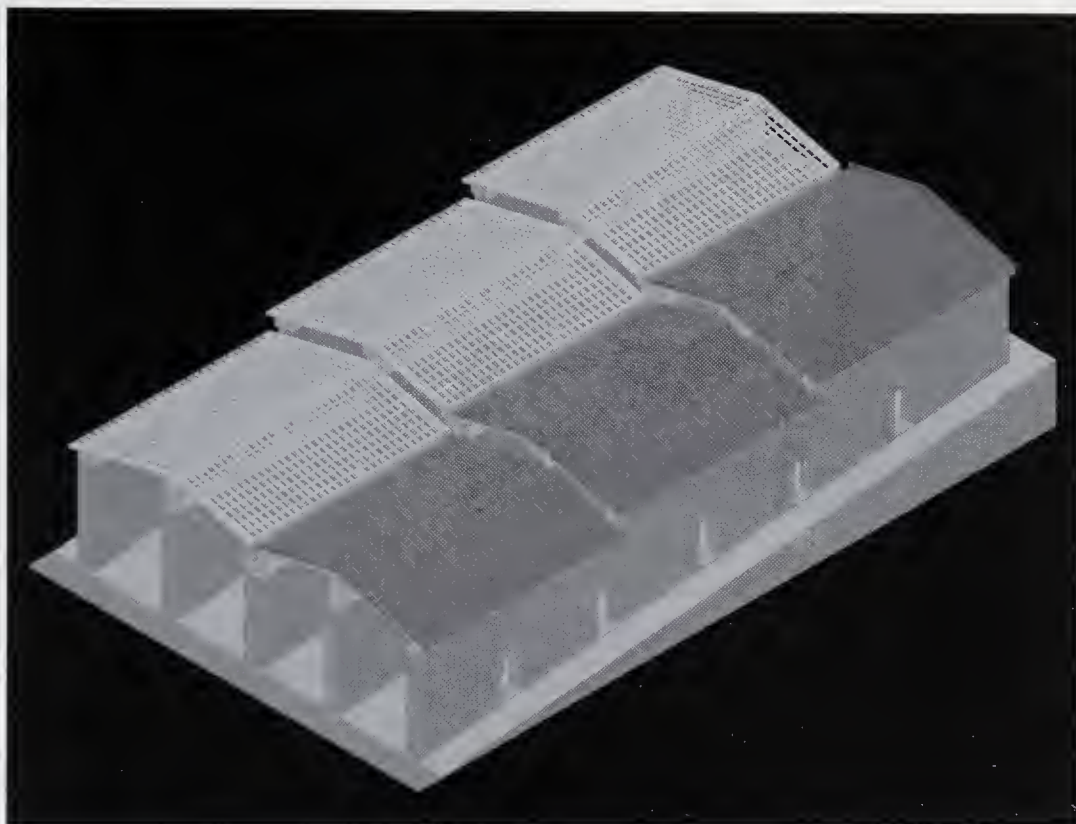


FIG. 54. Computer model of the final phase of the shipshed complex.



FIG. 55. Reconstruction of the north-west part of the shipshed complex superimposed on a 2005 photograph of the site.

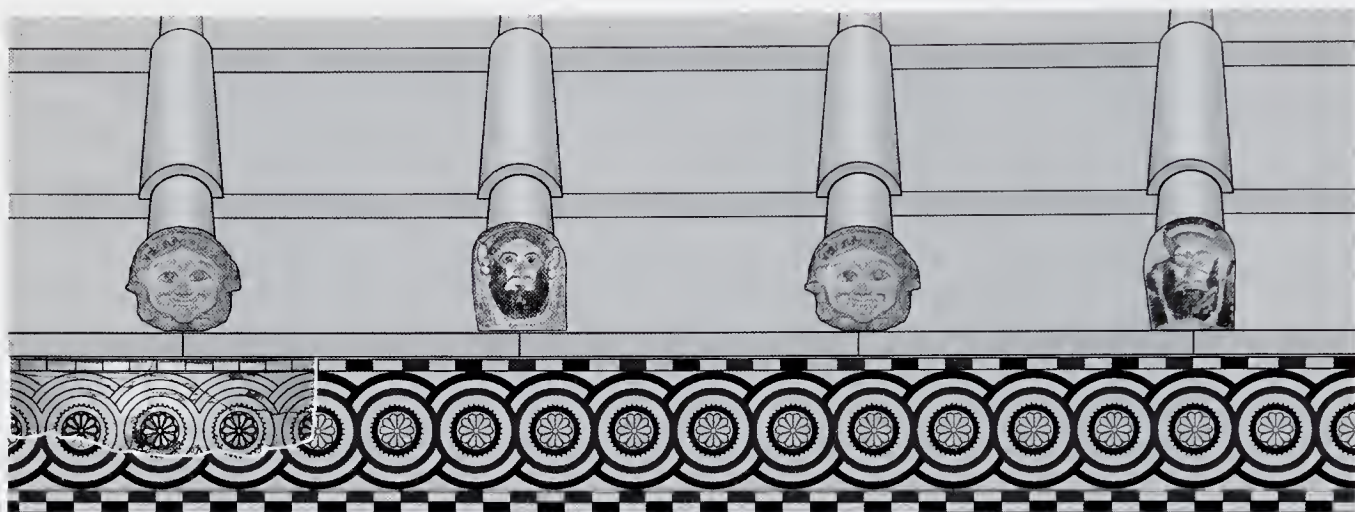


FIG. 56 Reconstruction of the roof, first phase, with alternating Gorgon and Silenos-mask antefixes.

fifth century BC. On the basis of the Type B and C Silenos antefixes, a partial restoration of the first roof before the mid-fifth century may be suggested. The building phases of the dockyard are now more clearly defined.

There are several reasons why the shipshed complex at Naxos should have been built as ostentatiously as possible: its site on the harbour lies just next to the most likely location of the agora, and due to the height of its roof it would have been clearly visible from there. It would have been among the first monuments anybody arriving from the sea would see; owing to its size it was already among the most expensive building projects, and so additional architectural decoration would not have made much of a difference to the overall expenditure; and even at times when the fleet was out at sea it would have been a constant reminder of the naval power of the polis.

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THE EARLY BYZANTINE CIRCULAR FORUM IN DYRRACHIUM (DURRËS, ALBANIA) IN 2002 AND 2004–2005: RECENT RECORDING AND EXCAVATION

I. INTRODUCTION

A. DYRRACHIUM: ADRIATIC PORT AND BALKAN GATEWAY (BY JOHN WILKES)

The settlement of Dorian Greeks from Corinth and its colony Corcyra established in the last quarter of the seventh century BC lay at the sheltered southern tip of a virtual island of low hills then linked to the Illyrian mainland by sandbars. A safe anchorage for shipping heading north along the east shore of the Adriatic, Dyrrachium (originally called Epidamnos) was also the preferred port for the south Adriatic crossing to Italy (the currents were less dangerous than in the narrows further south). To the east the settlement appears from the outset to have enjoyed close links with the Illyrian peoples of the interior.

The wider political horizons of the Hellenistic era made the port a prized possession for the ruler of Macedonia to the east, then for Epirus to the south, and again for the emerging Illyrian state to the north. When Roman forces first crossed the Adriatic in 229 BC their first act was to occupy Dyrrachium, a possession they were never to relinquish. A century later, when included within the Roman province of Macedonia, the city became the western terminus of the Via Egnatia, the great Roman highway constructed to link Italy with the east. Now Dyrrachium gained a reputation often attached to major ports of transit, ‘tavern of the Adriatic’ and ‘a place through which no goods passed intact’. Yet Cicero endured its discomforts for the better part of his year in exile (57 BC) because it was the best place to get the latest news from Italy. Soon afterwards Dyrrachium was the scene of the first major collision in the civil war between Caesar and Pompey. Finally whatever remained of the ancient Greek settlement was submerged within a Roman veteran colony (*colonia Iulia Augusta Dyrracinorum*) established after Octavian’s victory at Actium in 31 BC.¹

During the centuries of Rome’s unified Mediterranean empire Dyrrachium shed its global role for that of a prosperous regional port. In the reorganization of provinces early in the fourth century the region west of the watershed was detached from Macedonia and became New Epirus (Epirus Nova) with Dyrrachium as its principal city. The increasing separation between east and west following the death of Theodosius I in AD 395 and the disruptive presence of Goths in the Balkans saw the city recover some of its old strategic importance. Though apparently unaffected by the presence of Alaric and the Visigoths in the regions early in the fifth century, Dyrrachium was twice seized by the Ostrogoths, by Valamer in 457 and by Theodoric in 479. The departure of the latter for Italy was followed by an imperial recovery throughout the Balkans, marked by the proliferation of fortifications. In this regard it was an exceptional stroke of fortune that the emperor Anastasius (491–518) at this time was a native

¹ On the history and topography of Dyrrachium in the Graeco-Roman eras, see Cabanes and Drini 1995, 19–49.

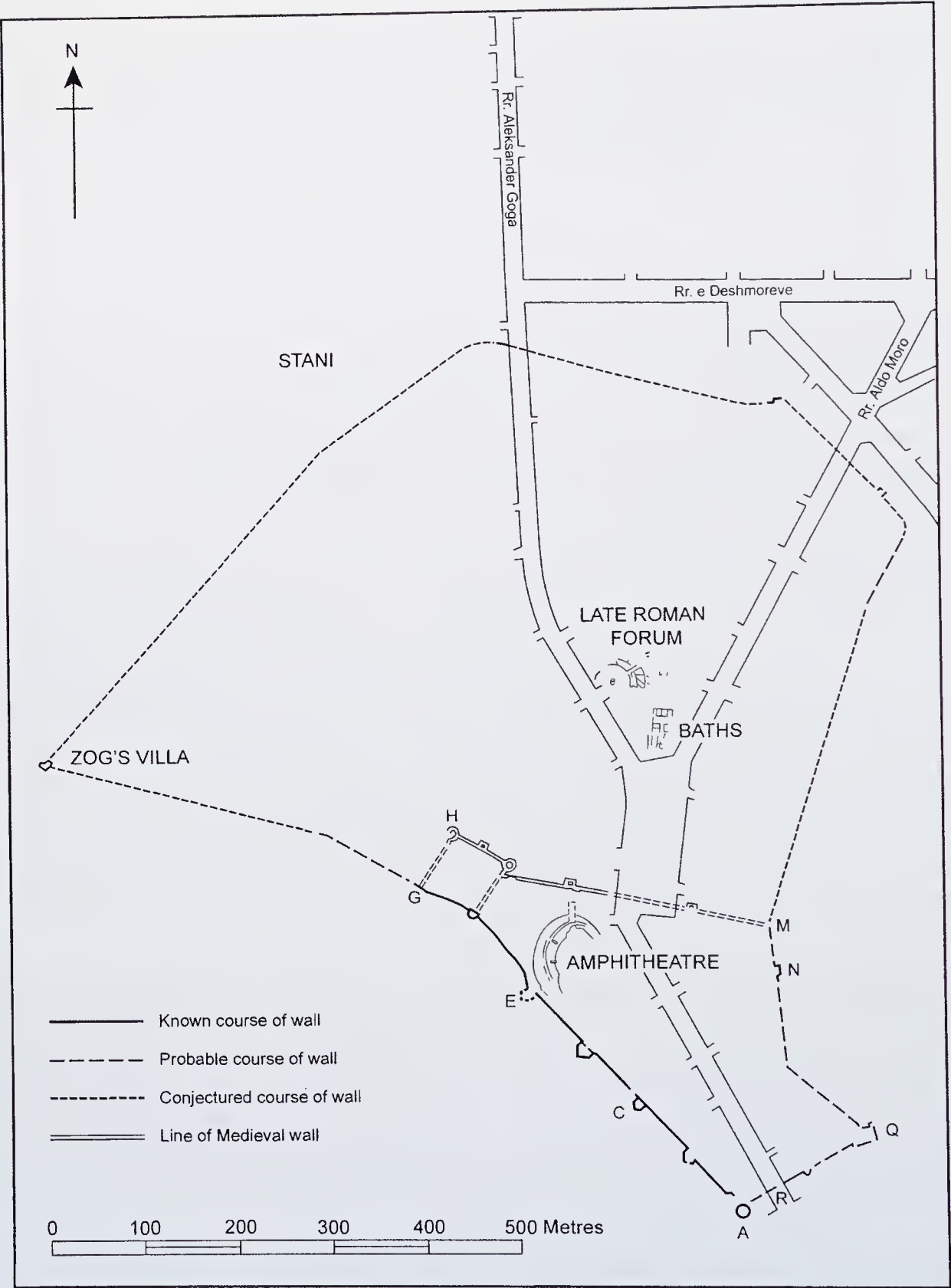


FIG. 1. Location map of forum (based on *JRA* 14, 393).

of the city (born c.439); he is recorded to have embellished his birthplace with a hippodrome and other public buildings. In the light of recent research it seems reasonably certain that the same ruler was responsible for the massive fortifications that now enclosed the city. Based in part on earlier defences, the visual impact of the great façade of walls and towers constructed in solid brick must have been immense, all the more so because Dyrrachium was now gateway to the empire. In the words of an authority on the defences: 'They are an act of both monumental and martial display as a statement of imperial potency, and the origin of Anastasius himself from Durrës only strengthens the image of imperial presence and architectural iconography' (Gutteridge 2003, 31).

Little has survived from the archaic and classical city, though a recently completed field survey has yielded traces of its impact on the surrounding territory in these eras. The Greek-speaking city is visible in a harvest of inscriptions, notably the large number of small columnar funeral monuments from cemeteries north of the city. The Roman colony is represented, characteristically, by the great amphitheatre and a large complex of civic baths. The rapidly accelerating construction in many areas of the modern city reveals many traces of the ancient city but rarely allows enough time for a full investigation. Until recently it seemed that, except for the walls, nothing had survived of the early Byzantine city embellished by Anastasius. Now that gap appears to have been filled though the discovery of the remains of the Macellum/Forum close to the centre of the modern city (FIG. 1).

In the following section (I. b) the excavations of 1987–2001 are described in summary, since a full account must await the clearance of modern structures to permit an examination of the entire monument. The focus of this report is recent work on the Forum, a circular colonnade enclosing a paved area, and a central rotunda. The first part is an account of the architectural remains completed in 2002, along with brief notes on the early medieval levels and burials (II). The second part (III) describes the completion in 2004 and 2005 of two unfinished trenches of the earlier excavations below the level of the Forum adjacent to the Rotunda, undertaken with the specific goal of obtaining stratified dating evidence for construction of the monument. A concluding section (IV) summarizes the new evidence for the earlier structures on the site and for the character of the Forum.

The work in 2002, 2004, and 2005 was supported by the Packard Foundation for the Humanities through the International Centre for Albanian Archaeology in Tirana, and was undertaken under the auspices of the Archaeological Museum of Durrës.

B. EXCAVATIONS OF THE MACELLUM/FORUM 1987–2001 (BY AFRIM HOTI)

The Macellum/Forum first came to light in 1987 when an area behind the A. Moisu Theatre was excavated to a depth of 2.40 m prior to the construction of a public square. This revealed a part of the circular colonnade and Forum paving at a level above that of the adjacent baths, along with an enclosing courtyard and an outer circle of smaller rooms identified as belonging to a Roman market (*macellum*), similar to those known in other parts of the Roman world (PLATE 40). The finds indicated a date for the structures in the fifth or sixth centuries. In this first season were also found some of the early medieval burials that covered the entire site (see below II. j). In the following year further excavation east of the colonnade revealed more of the outer structures, a complex of shops (A–C), an entrance (FIG. 2; PLATE 41a), and yet more burials (FIG. 4). Further work in the same area revealed a room identified as a workshop, with a large drainage channel. By now it was clear that this was a structure entirely

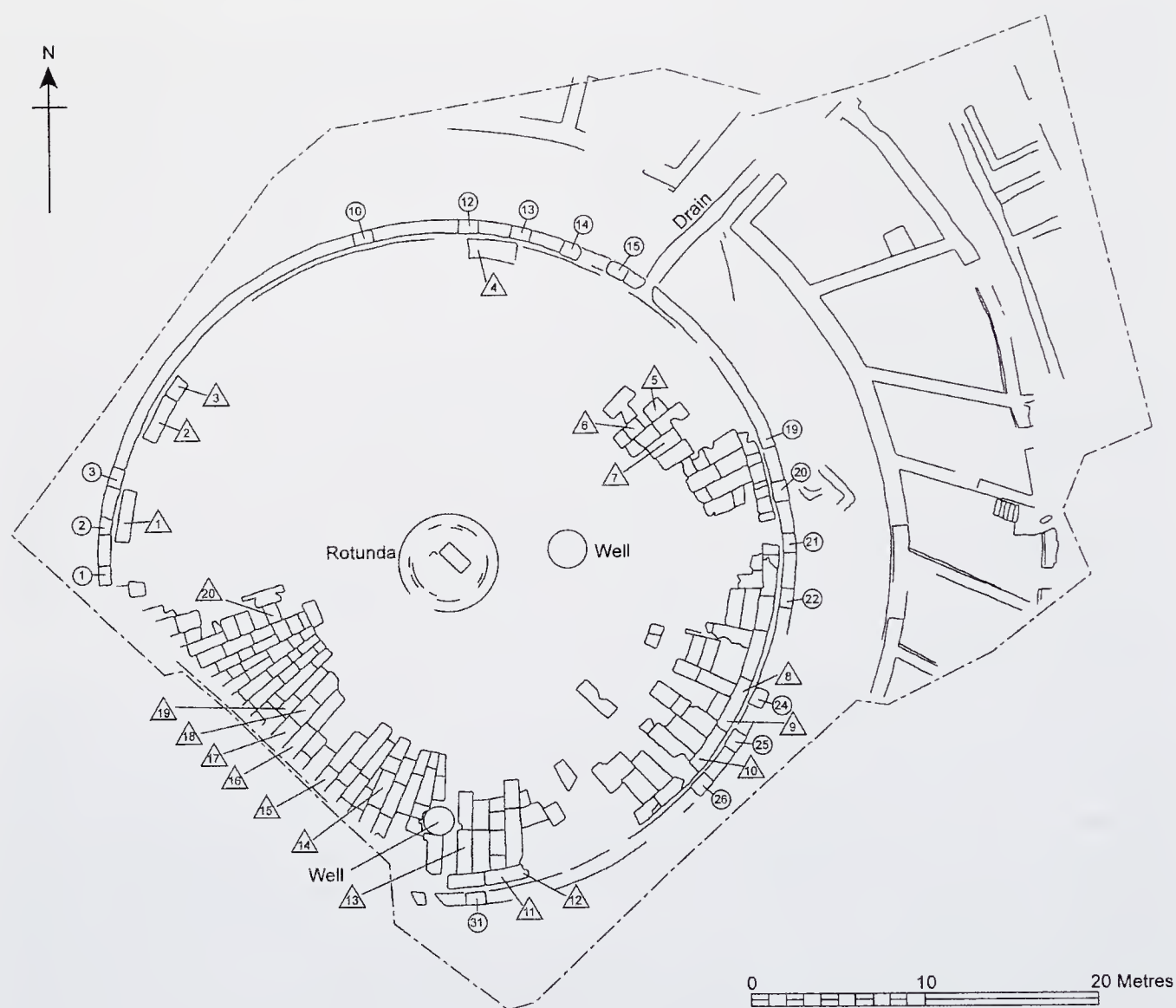


FIG. 2. Circular colonnade with locations of plinths (numbered circles) and inscriptions (triangles).

separate from the baths which it partly overlay. In 2000–1 the excavations of two further rooms in the outer circle (D and E), also identified as shops, yielded a ceramic deposit of 56 kg from the Late Roman/Early Byzantine period. This important deposit, including imported fine wares, amphorae and coarse wares, is the subject of a study by Shkodra (2006). Evidence recovered from the site as a whole indicates a date for the construction of the Macellum/Forum to the late fifth century, suggesting that it was one of the many buildings bestowed by the emperor Anastasius (AD 491–518) upon his native city.²

Hitherto it has not been possible to locate precisely the market complex and the civic baths within the little that is known of the ancient street grid of Durrës. Remains of a Roman street that headed north from the modern port entrance towards the area known as ‘Parku sportiv’

² For summary accounts of the earlier excavations see Hoti 1987, 1988, and 1989; Hoti *et al.* 2004, and on the

monument in its wider context Muka 2003. On the pottery from the site see Shkodra 2005b, 2006.

(Alexander Goga Street) were traced in 1960 at the west entrance to the city markets at a depth of 2–2.20 m (Toci 1965). It seems likely that this was the principal north–south axis of Roman Durrës within an orthogonal street grid (FIG. 1). Structures aligned with this line have been located on both sides of the road, near the former Maliq Muco school (Tartari and Myrto 1988). Remains of a second north–south Roman street were identified on the west side of the civic baths (Kabashi 1989, 286), while it is also judged to be significant that the long axis of the nearby amphitheatre appears to coincide with the line of these two streets (Gutteridge *et al.* 2001).

II. THE CIRCULAR COLONNADE, PIAZZA, AND CENTRAL ROTUNDA (FIG. 2; PLATE 41*b*) (BY JOHN WILKES)

By 2001 excavations of the Macellum/Forum had reached the limits imposed by the topography of the modern city. Yet enough had been done to demonstrate that the paved area and Rotunda enclosed by the circular colonnade was a monument of great importance from the Late Roman/Early Byzantine era and directly comparable with similar structures at Constantinople and elsewhere. The following sections offer a record of the surviving architectural elements and other remains in the Forum area (A–H), along with a record of the surviving medieval levels compiled in 2002 (I), and a summary account of the early medieval burials in the Forum area recorded during the earlier excavations (J).³

A. PERIMETER WALL AND DRAIN

The raised podium of the circular piazza has a diameter of 40 m and is defined by a brick-faced wall of rubble concrete of inferior construction (0.76–0.80 m wide) (PLATE 43*a*). In some places the wall was constructed in short, straight sections with changes of direction more or less coinciding with the columns of the colonnade, although the outer face has throughout a regular curved profile. The limestone plinths supporting bases, shafts and capitals were set into the upper courses of the wall at intervals that vary between 1.78 and 2.06 m. There is no evidence for how the original exposed top surface of the wall in the spaces between the plinths might have been covered. The recesses and make-up for the bases that are now missing can be detected in the top of the wall, whose upper surface consists now of bricks and eroded mortar. Throughout the entire perimeter there are no traces of repairs or alterations, nor any indication of structures attached to the outer face of the circle.

Between the inner face of the perimeter wall and the outer edge of the marble paving there ran a shallow drain (0.25–0.36 m wide and c.0.20 m deep). In some areas on the east and west the base of the channel was formed of stone slabs but elsewhere bricks were used. The variations in width were caused by the slabs of the marble paving that formed the inner edge of the drain not being cut to a circular profile but simply left with straight sides. The outflow of the channel lay on the east where a stone-lined culvert led out of the colonnade between bases **15** and **16**, the location of the presumed entrance.

³ Bold figures in parentheses refer to the catalogue of architectural elements in the Appendix below.



FIG. 3. Circular inscription and design on forum paving (Section 6 no. 16).

B. LIMESTONE PLINTHS (PLATES 42 and 43)

Seventeen survive, of which sixteen remain still *in situ* set into the upper levels of the perimeter wall described above (1-3, 10, 12-15, 19-22, 24-6, 31), while another (18) has recently been levered from its position and lies near the outer face of the perimeter wall. Set at intervals of between 1.78 and 2.06 m, the plinths consist of rectangular blocks 1.18-1.20 m long of fine-grained cream limestone available from quarries in the vicinity of the city. All exhibit the marks of use in an earlier structure. In width they fall into two groups, a larger of c.0.86-0.89 m (3, 13-15, 18, 20, 24-6) and a smaller with a width of 0.73-0.75 m (1-2, 10, 12, 19, 21-2, 31), while both groups have a similar thickness of 0.20-0.23 m.

All the blocks have an upper surface rendered smooth through prolonged pedestrian wear (1 and 3 were inverted at the time of their reuse in the colonnade). All blocks also have traces of anathyrosis bands of c.80-100 mm on both the long and the short sides (PLATE 43 a),



FIG. 4. Late burials in area of Forum and Macellum.

indicating their use in a horizontal surface of closely fitted blocks in rows 0.86 and 0.75 m wide. On the long side the band of anathyrosis has a roughly central downward extension that indicates the join between the blocks of the adjacent row. On many blocks there is also visible an incised mason's line at the precise centre of the long side. One can only speculate as to the origin of these blocks. The large number (probably 40) and consistent dimensions in two sizes suggest they were removed from a single public space. One possible source is the, by then disused, amphitheatre around 300 m away. There some of the heavy paving blocks that remain *in situ* in the lower gangway appear to be of the same stone and were laid in an arrangement similar to that in which the colonnade blocks were originally employed.

Some of the plinths are damaged at the corners and on the sides, and two adjacent blocks (**25** and **26**) have a similar shallow channel cut into the upper surface on the long axis (30–40 mm deep, 180 mm wide and 220 mm from the edge), indicating a later structure erected on the line of the demolished colonnade but when the plinths were still *in situ*. In one of these blocks (**26**) a lead-filled socket close to the edge of one of the long sides indicates the presence of a barrier or balustrade perhaps belonging to the period of original use. The cut or fracture of another plinth block (**31**) some 200 mm from one of the long sides may also belong to its original phase of use.

The function of the plinths was to provide a level and stable base for the architectural elements of the circular colonnade. The upper surfaces of those on the north (**10–12**) are within 100 mm of those on the south (**24–5**) but a subsidence in the east part of the circle has left the levels of the bases in that area up to 300 mm lower than the rest, though whether this occurred during the existence of the colonnade remains uncertain.

C. MARBLE BASES (PLATES 42–43)

Upon each of the plinths a pad of coarse pink mortar was spread over the upper surface on which was placed a base 0.27–0.29 m high carved in grey-white marble, probably originating from the quarries of Proconnesus in the Sea of Marmara. Some remain *in situ*, or have been relocated in the course of recent reconstruction (**1–2**, **12**, **14**, **22**, **31**; **10** and **14** are no longer in place while **20** has recently been displaced and now lies upside down near the perimeter wall). An unfinished base in blue-grey marble (now on plinth **20**) may have been rejected because of a natural flaw, although the stone is different from that of the others. In form the bases resemble an inverted Doric capital resting on its square abacus (sides 0.72–0.75 m and 0.10 m high), on which is a chamfered lower torus and a plain scotia c.0.55 in diameter. On the upper surface there is a dowel socket (70 mm diameter) with a V-profile lead channel 25 mm wide. All of the bases are roughly dressed in similar fashion with the chisel, perhaps carried out at the quarry, and there is no indication that any was finished in the manner one might have expected. Several bases have Greek letters (c.50 mm high) inscribed on the side of the abacus, PAT (**1**, **13**, **14**) (PLATE 42 *a*), EY (**22**) and a possible ΣΡ (**24**), all possibly applied in the quarry. The upper torus of a base in the Attic-Ionic tradition is here cut as a plain band (c.100 mm) on the base of the shafts.

D. COLUMN SHAFTS (PLATES 42 *b*, 43 *a*, 44 *c*)

Each base was intended to support a plain circular shaft of marble. One example that has survived intact and that has been set on a base (**12**) is 3.45 m high with a lower diameter of c.0.55 m and an upper of 0.45 m. The base is decorated with a plain torus mould and there

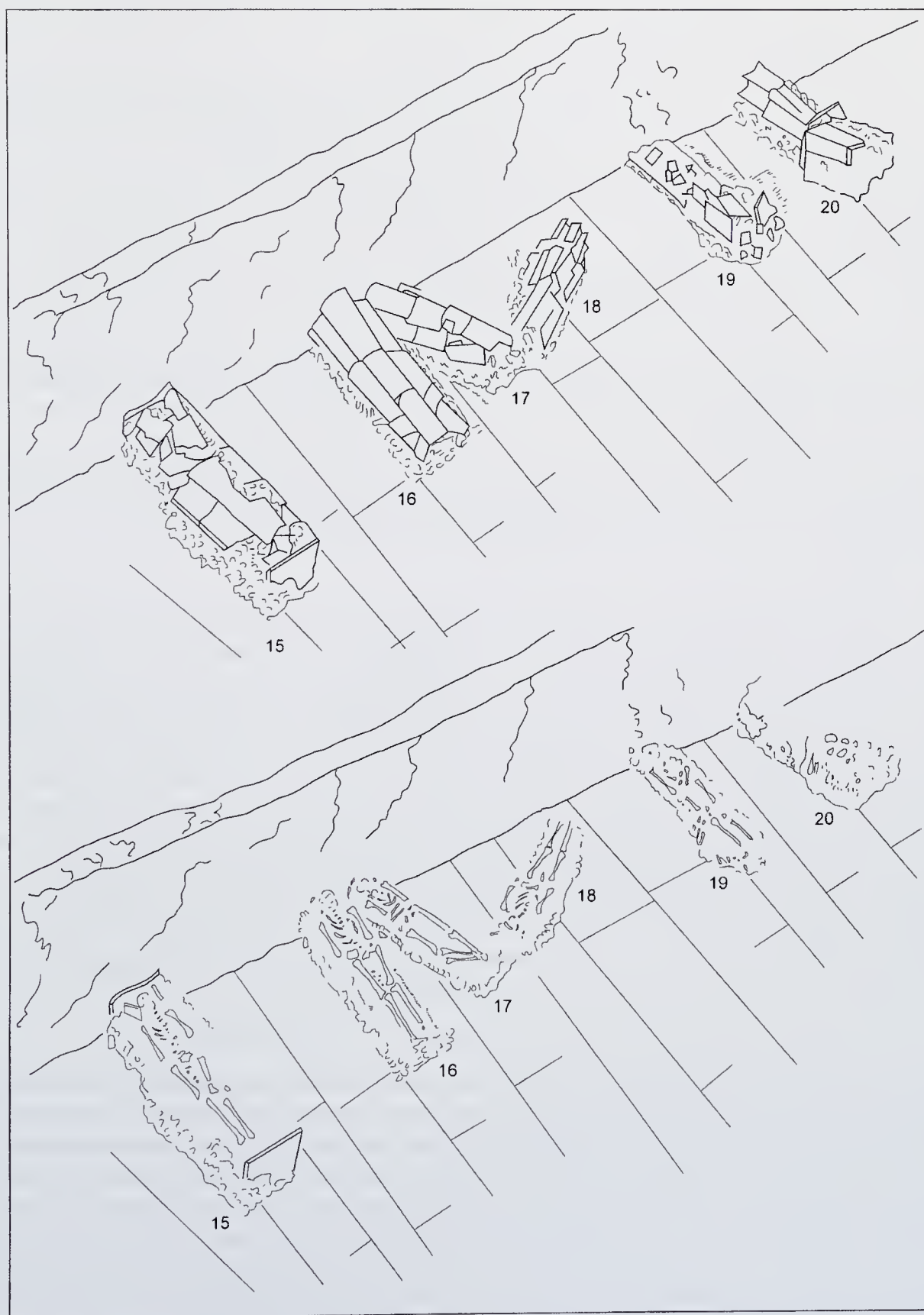


FIG. 5. Projection drawing of burials 15–20 against west profile above forum pavings.

is a plain double moulding at the top. The fragments of three other shafts have been re-connected (3.52 m high) and set on bases (2, 13, 22).

Among fragments of other shafts that remain within or near to the colonnade that adjacent to base 12 is almost complete. While its general proportions do link it with the other re-erected shafts the actual dimensions (base diameter 0.42 m, upper 0.37 m and height 2.28 m) indicate a different series. The fragment of another shaft adjacent to base 15 has similar dimensions (2.25 m long, with upper and lower diameters 0.38 and 0.44 m) and is likely to belong to this second group. The base fragment of a shaft in grey granite with a torus moulding and a base diameter of 0.60 m appears too large to have belonged to the colonnade, unless perhaps it figured somehow in the nearby entrance to the circular piazza.

As far as can now be determined the intercolumniation in most of the colonnade was c.3.00 m, possibly varying by up 0.15 m. An entrance to the piazza on the east appears to be indicated by the wider spacing between shafts 15 and 16, while an overall calculation of the intercolumniation of the 40 m perimeter suggests there may have been a corresponding entrance on the west between the as yet unexcavated column locations (35–6).

There is a presumption that, like the plinths, the bases and shafts were *spolia* extracted from existing buildings elsewhere in the city but none of the many cuts and incisions into the shafts appears likely to antedate their incorporation into the colonnade.

E. CAPITALS (PLATE 42 c)

Three marble Corinthian capitals remain on the site, two of which have been placed on re-erected shafts (12, 15). These are 0.57 m high and 0.72 m across at the top. The third remains adjacent to plinth 16. Carved from the same grey-white marble as the bases and shafts, the Corinthian scheme is produced in rather squat proportions. Fleuron stem and helices are damaged on all three examples and the volutes on two. The bell is cased with two tiers of spiky acanthus, achieved by cutting the leaves as facets and resulting in the loss of naturalistic appearance. The angular effect is softened by the very rounded voids between the follicles. Overall the form is typical of the late Roman/early Byzantine period, probably mass-produced in a finished state at the quarries that remained productive in this period.

Despite a modern reconstruction that includes a faceted architrave above the restored shafts and capitals, there is no evidence from the site or from the vicinity for any form of entablature. The possibility that such a feature was present cannot be entirely ruled out but currently there is no evidence of any kind that this was the case.

F. FORUM PAVING, DRAINAGE TANK, AND WELL (FIG. 2; PLATE 41 a)

The area between the inner face of the colonnade and the foundation of the Circular Rotunda has a radius of 16.90 m. The outer band of this area (11.70 m wide) was paved with slabs of grey-white marble, some of which still remain *in situ*. Whether or not the inner part of the piazza (5.20 m) was paved in a similar fashion remains uncertain, since the inner limit of the surviving paving on the west appears to be defined by a circular edge that may indicate a change in level for the inner surface area of the piazza. At the same the excavation profiles revealed in 2004 and 2005 (see below, section III) indicate that the floor of the piazza in the vicinity of the Rotunda was at or near the same level as the existing paving.

The slabs have a thickness of c.60 mm and are laid on a bed of white mortar and crushed brick. They are closely fitted and none bears signs of having been already used in another

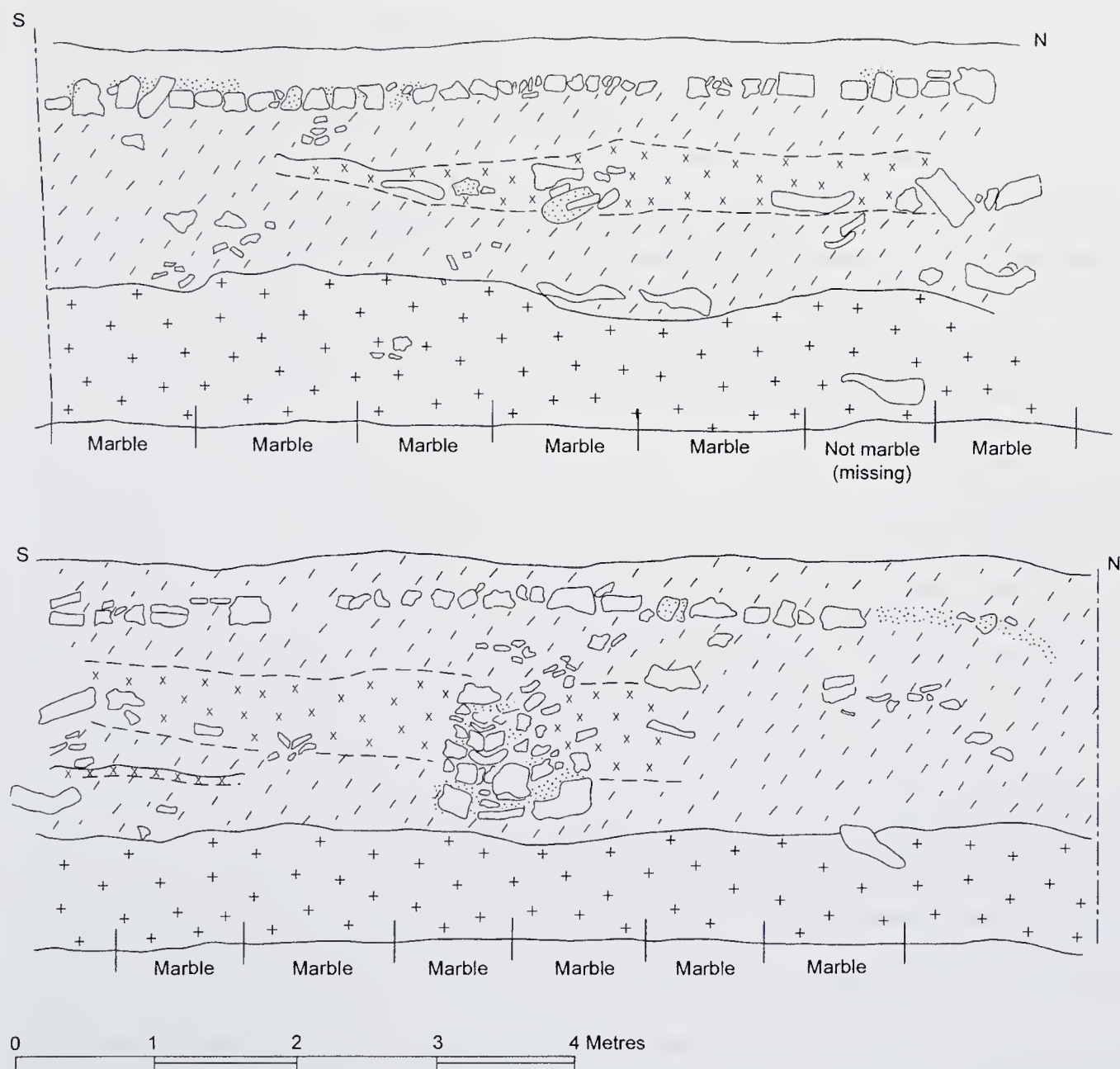


FIG. 6. Profile of levels on west between forum paving and modern street level.

context. Most of the slabs are laid in a concentric radial arrangement, except for the outer ring adjacent to the perimeter colonnade which consisted of larger slabs (0.82–0.90 m wide) laid lengthways along the inner side of the perimeter drain. In some places the outer edges of these slabs were cut to the curvature of the drain but in other places this was not done. Within this outer circle the slabs were tapered to fit the radial pattern until the point where a second circle of slabs laid lengthways marked the inner limit of the paving leaving the unpaved area at the centre (5.20 m wide) around the Rotunda.

Close to the colonnade in the south-west of the piazza a square drainage tank or sump with sides of 0.65 m, constructed in stone and brick, was probably an original feature for use in cleaning the paved area and the perimeter drain. The date of the well c.2.75 m south-east of

the Rotunda (PLATE 41*b*) is less certain. The interior diameter is 1.20 m. For a depth of c.1.30 m the sides are lined with bricks (0.20 × 0.27 × 0.37, 0.31 × 0.23 × 50 mm) then to a depth of 2.40 m with stones set in mortar, below which again are courses of bricks set in mortar. The material recovered from the fill does not rule out a Roman date but the balance of evidence suggests a medieval date.

G. INSCRIPTIONS ON THE FORUM PAVING (FIG. 2; PLATES 44–45*b*)

A number of Greek letters and other markings were cut into the paved surface, apparently while the circular piazza was in use (height and width in mm):

1. 'Benchmark motif', 40 × 80 (PLATE 44 *a*)
2. Cross, 70 × 66 (PLATE 44 *b*)
3. Cross, 50 × 70
4. Cross, 60 × 60
5. Theta, 50 × 60
6. Theta, 60 × 50
7. Theta, 60 × 50 (PLATE 44 *c*)
8. Cross, 50 × 40
9. Cross (damaged), 50 × 40 (?)
10. Cross (damaged), 50 × 40
11. Cross, 50 × 60
12. Cross in semicircle (theta?), almost erased
13. Theta, 60 × 60
14. Theta, 70 × 50
15. Circular design, very worn, 450 diameter
16. Circular design, well preserved, 550 diameter (FIG. 3; PLATE 45 *a*)
17. Circular design, worn, 500 diameter (PLATE 45 *b*)
18. Incised rectangle, 1200 × 900, with cross, 50 × 40
19. Cross, 50 × 50
20. Iota (?) and omega, 40 × 100

These include eight simple cross-marks incised mostly in the outer ring of paving slabs (nos. 2–4, 8–11, 18–19) and five examples of what appears to be the Greek letter theta on some of the radial slabs (nos. 5–7, 13–14). The most intriguing consist of three circular motifs (c.500 mm diameter) carved into the radial slabs adjacent to the present west edge of the excavation and seemingly located close to the axis between the known entrance through the colonnade on the east and the presumed entrance (unexcavated) from the west (FIG. 3). The three designs 15–17 appear to be identical and the varying degrees of wear suggest that only one of these was in use at any one time, having had to be replaced on a different slab as required. Within a circular pattern of semicircles (domes?) surmounted by crosses a Greek inscription reads: /TO O/NO/MA/+KΩ/NΣ/TA/NTI/N/ ('The Name of Constantine?'), whose significance remains uncertain (FIG. 3).

Consultation with specialists in the epigraphy of this era has yielded no close parallel with this circular design. *Prima facie* its appearance in the same area of the Forum, where it was renewed at least twice after heavy wear, suggests that it may have served some popular

recreational function rather than one linked with official ceremonial. This also seems to be confirmed by the crude carving of the design using the point of a chisel.⁴

H. CENTRAL ROTUNDA (FIGS. 2–13; PLATES 45*c*, 47*b*)

At the centre of the piazza is the circular foundation of mortared rubble, brick, and stone with a diameter of 5.75 m and which excavations in 2004 and 2005 revealed to be set on a square podium of similar dimensions and construction, making a foundation for the monument that extended for at least 3 m below the level of the marble paving. Above the level of the paving the surviving core indicates the existence of two concentric steps (each 0.25 m high). In the top surface of the rubble concrete are embedded two massive limestone blocks once held together by dovetail clamps (now removed), although whether this was their original situation seems unlikely. The visible dimensions of one block are 1.82 m long, 0.90 m wide, and at least 0.32 m deep and this, along with the other, appears to have formed a square plinth (sides 1.80 m) at the centre of the monument. The clamp sockets are 210 mm long and 50 mm deep tapering towards the join from 100 to 80 mm. It seems unlikely, though not impossible, that these blocks belonged to an earlier structure later incorporated into the monument and most likely they are another example of architectural *spolia* brought from elsewhere in the city for this project, while the correspondence of the clamp sockets can only be coincidental.

Whatever stood on this circular foundation must have been the central focus of the entire complex. A statue or group of statuary is possible but the massive podium on which it rested (PLATE 48*b*) suggests something taller, perhaps a column surmounted by a statue, comparable with that in the round forum at Constantinople.

I. OCCUPATION LEVELS ABOVE THE CIRCULAR FORUM (BY ELVANA METALLA)

No record was available of the levels removed by excavation from above the colonnade and piazza, except for that of the early medieval burials described below. In order to retrieve some form of record a length of c.15 m along the western limit of the excavation (FIG. 2) was dressed back to produce a profile of the post-Roman deposits c.2.50 m high, between the level of the paving and that of the modern street (FIG. 6).

Between 9 and 10 m from the south (left), cleaning revealed in section a wall on a north-west-south-east axis, constructed of small stones and mortar, and another possible wall around the 6 m point along the section, aligned on a similar axis.

Above the marble paving was a layer of dark soil c.1.00 m high, containing a few fragments of residual pottery and bricks. Above this a brown to yellow deposit of clay c.1.00 to 1.15 m contained quantities of tile and pottery, some of which probably comes from the burials. Indications of more burials within the section, including an infant skull, and the remains of an adult burial at the southern limit of the section, could not be examined further. Between this and the make-up for the modern street, a level of brown soil contained pottery and brick fragments.

It proved difficult to separate the pottery recovered from cleaning the section. In addition to residual material that included late antique amphorae (LR 1 and LR 2), there were Apulian amphorae of the eleventh to twelfth centuries. Domestic wares included protomaiolica of the

⁴ There appears to be no obvious parallel to this design or text: we are grateful for comments by Charlotte Roueché, Cyril Mango, and Denis Feissel. A similar

design, though devoid of letters, was recently noted (J.W.) in the Forum paving at Timgad in Algeria.

thirteenth century originating from Brindisi, and an example of Corinthian sgraffito, a green-glazed bowl with a fish motif of the twelfth century.

J. EARLY MEDIEVAL BURIALS (BY AFRIM HOTI)

At least fifty-six inhumation burials were located in the course of the earlier excavations, extending across the entire area (FIG. 4). Some lay directly on the Forum paving, others in the surrounding court and above the remains of the shops in the outer circle. Most graves were constructed of reused curved ancient roof tiles (*imbrices*), a form of burial known elsewhere in Durrës (Hoti 1996). Most are oriented west-east, with head to the west, but others are aligned north-east-south-west and north-west-south-east, and one (17) is an exception with head to the south. The skeletons were laid supine, with arms and hands in various positions, forearms across the chest, hands resting on abdomen or pelvis, arms alongside the body, right forearm on the chest, left on the abdomen.

Few of the burials contained grave goods (4, 14, 21). One (4) contained beads of millefiori glass and others resembling pearls, and two bronze head ornaments. A number of other finds, buckles, iron knives, etc., from the same horizon may have come from disturbed graves. The burials were evidently deposited over a long period. If a buckle of Sicilian type does come from a grave then burial on the site had commenced by the early seventh century. The beads and bronze ornaments noted above also indicate the same date. The latest object is a bronze cross (22) dated to the twelfth-thirteenth century. Twenty graves lay within the area of the Forum (1-4, 14-20, 31-2, 41-4, 51-3), of which six (FIG. 5) were adjacent to the section on the west of the site described above (Section II. i).

APPENDIX: ARCHITECTURAL ELEMENTS OF THE CIRCULAR COLONNADE (FIG. 2; PLATES 42-43) (BY JOHN WILKES)

These elements are identified by location numbers, beginning with the first visible location at the north-west corner of the site and then proceeding clockwise, including in the sequence both notional and actual remains. A total of 32 locations lie within the excavated area, the remaining eight (33-40) lying beneath the modern street that borders the site on the west.

In the following catalogue 'inner face' and 'outer face', 'left side' and 'right side', are as seen from within the circle of the Colonnade.

1 Plinth (PLATE 42 *a*), inverted ($1.16 \times 0.74 \times 0.18$ m), damaged on the upper edges and corners; anathyrosis on lower inner face (80 mm), at damaged left end of inner face (30 mm), on outer face along lower edge (90 mm) with vertical band (80 mm) near centre, on right face (80 mm). Base, set on pink mortar (0.71 m square, 0.30 high) with lead-filled dowel socket and Greek letters PAT (alpha with dropped bar) on right of base.

2 Plinth (PLATE 42 *b*), damaged on left side with right inner corner broken away ($1.14 \times 0.73 \times 0.23$ m); anathyrosis on upper edge of inner face (110 mm), vertical band (80 mm) near centre with inscribed mason's line, on damaged right face (110 mm). Base, now replaced ($0.74 \times 0.74 \times 0.30$ m), with

Greek letters EY on right of face. Shaft, restored from fragments (3.45 high, 0.42 m diameter with dowel socket on top).

3 Plinth, inverted ($1.19 \times 0.86 \times 0.20$ m); anathyrosis on all four faces (90-100 mm), upper surface damaged, with parallel setting lines 0.72 m apart.

4-9 No surviving remains.

10 Plinth (1.18×0.74 m); anathyrosis on inner face (120 mm) with vertical band (70 mm) at centre, on outer face (120 mm) with vertical bands (50 mm) at either side, on left face (100 mm) with vertical border (60 mm), on right face (100-120 mm) with vertical borders (70-80 mm); a cut into the upper surface (20 mm deep) probably post-Roman. Base,

unfinished in blue-grey marble (0.64×0.64 m, 0.25 high), with dowel socket (65 mm) and pouring channel.

11 No surviving remains.

12 Plinth (PLATE 42 *c*) ($1.18 \times 0.89 \times 0.22$ m); anathyrosis on inner face (100 mm) with bands (40 mm) at either end, also possible on side faces, on outer face (100 mm) with vertical band (90 mm) near centre with incised mason's line. Base; in grey-white marble (0.73×0.73 m, 0.29 m high). Shaft; in grey-white marble (3.45 m high). Another shaft in similar marble in vicinity (2.29 m high, 0.42 and 0.36 m lower and upper diameter) with square dowel socket (c. 60 mm) and vertical bands of chiselling (c. 25 mm wide), probably secondary. Capital, acanthus in grey-white marble (0.57 m high, 0.73 wide).

13 Plinth (PLATE 42 *c*) ($1.19 \times 0.75 \times 0.23$ m); anathyrosis on inner and outer faces (100 mm) with vertical bands (70 mm) at right ends, left face (110 mm) with border (80 mm) at outside left, on outer face a vertical band (80 mm) with incised mason's line. Base, in grey-white marble (0.74×0.74 m, 0.28 m high), on right face incised Greek letters PAT (alpha with dropped bar). Shaft; now restored in plain marble (3.45 m high). Capital; acanthus in plain grey-white marble (0.57 m high, 0.70 m square).

14 Plinth ($1.19 \times 0.89 \times 0.23$ m), damaged at right side; anathyrosis on inner face (110 mm) with band (100 mm) at centre, on left face (100–110 mm) with inner (right) border (40 mm), on outer face (100 mm) with vertical band (40 mm) at right side. Base; in grey-white marble (0.74×0.74 m, 0.28 m high) dowel socket (75 mm) with pouring channel, Greek letters PAT (alpha with dropped bar) on left face.

15 Plinth ($1.19 \times 0.89 \times 0.23$ m), with chiselled cutting in upper surface (0.14 wide and 1.03 from inner edge), probably secondary; anathyrosis on left (120 mm) and right (110 mm) sides with vertical band (60 mm) at right, and on outer face (110 mm) with vertical band (70 mm) at centre. Shaft, (i) lying in vicinity, incomplete in grey-white marble (2.35 m long, base diameter 0.46 m) with dowel socket (60 mm), with chiselled facets similar to shaft **12** above, (ii) base fragment in grey granite (0.77 m long, base diameter 0.60 m) with dowel socket (30 mm).

16 Capital in vicinity of **15**, acanthus in grey-white marble not *in situ* (0.54 m high, 0.46 m diameter, top 0.72×0.72 m).

17 No remains.

18 Plinth, recently removed from position (1.19×0.89 m); anathyrosis, left side (100 mm) and outer face (100 mm) with vertical band (40 mm) at edge.

19 Plinth ($1.20 \times 0.75 \times 0.21$ m); anathyrosis on left side (110 mm) with vertical band (60 mm) at left (outer) edge, outer face (100 mm) with vertical band at right (outer) edge, on inner face (110 mm) with vertical band on right side. Base (0.61×0.61 m base, 0.26 m high) in grey-white marble (not *in situ*) with dowel socket (70 mm) and pouring channel.

20 Plinth (PLATE 43 *b*) ($1.19 \times 0.89 \times 0.22$ m); anathyrosis on inner face (100 mm) with vertical band on left (outer) edge with inscribed mason's line at centre, on left side (110 mm) with vertical band (90 mm) on left (outer edge) and on damaged right side (100 mm) with vertical band on inner (left) edge, on outer face (100 mm) with vertical band (50 mm) at outer (right) edge, but with no incised line. Base, in grey-blue marble, unfinished, possibly abandoned (0.65 m square, 0.26 m high) with dowel hole.

21 Plinth ($1.18 \times 0.75 \times 0.17$) with pad of pink mortar and imprint of removed base; anathyrosis on inner face (100 mm) with vertical bands (50 mm) at either edge, on outer face (100 mm) with vertical band (90 mm) at centre with inscribed mason's line, on left and right faces (100 mm) both now obscured by mortar.

22 Plinth ($1.18 \times 0.75 \times 0.17$ m); anathyrosis on inner face (75–80 mm) with vertical band (0.50 mm) at left edge, on right face (damaged, and once 75–80 mm) with vertical band (30 mm) at right (outer) edge, on outer face (80 mm) with incised mason's line at centre and vertical band (100). Base, in grey-white marble (0.75 m square, 0.28 m high) with incised Greek letters EY on outer face. Shafts, (i) plain marble (3.52 m high, diameter 0.46 m) with dowel socket (70 mm), (ii) intact shaft lying outside perimeter (2.23 m high, diameter 0.44 m base, 0.38 m top) with square dowel socket (55 mm), vertical bands of chiselling (c. 35 mm wide) intended to suggest faceting, possibly secondary.

23 No remains.

24 Plinth ($1.18 \times 0.89 \times 0.22$ m) still embedded in mortar; anathyrosis on inner face (110 mm) with vertical band (45 mm) near centre, on outer face (110 mm) with vertical band (60 mm) at left edge, left face hidden by mortar. Base, in grey-white marble (0.73 m square, 0.26 m high) with dowel socket containing lead plug and pouring channel. Greek letters ΣΡ incised on right face of base.

25 Plinth ($1.19 \times 0.89 \times 0.23$ m), with shallow cut (180 mm wide, 35–40 mm deep), anathyrosis on left and right faces now concealed by mortar, on inner face (120 mm) with vertical band (90 mm) and incised mason's line near centre.

26 Plinth ($1.20 \times 0.89 \times 0.23$ m) with channel cut into upper surface (20 mm deep, 200 mm wide) with lead-filled socket (55×85 mm); anathyrosis on inner face (120 mm) with vertical bands (90 mm) at edges,

on right side (120 mm) with vertical band (60 mm) at right (inner) edge, on outer face (110 mm).

27–30 No remains.

31 Plinth ($1.20 \times 0.76 \times 0.20$ m), with cut or fracture near back edge; anathyrosis on right side but left side buried in mortar on inner face (100 mm) with vertical band (50 mm) to the right of centrally inscribed mason's line, on right side (70 mm) with vertical band (60 mm) at left (inner) edge, outer face (80 mm) with vertical band (50 mm) at right (inner) edge. Base, in grey-white marble (0.72 m square, 0.28 m high) with dowel socket (65 mm) and pouring channel.

32 No remains.

33–40 Presumed locations of plinths, bases, shafts and capitals, in unexcavated west sector of Colonnade beneath the modern street.

III. EXCAVATIONS IN 2004 AND 2005 SOUTH AND NORTH OF THE ROTUNDA (BY ELVANA METALLA AND BRIKENA SHKODRA)

In 1998–9 two trenches were excavated below the level of the Forum paving adjacent to the north and south faces of the Rotunda at the centre (PLATE 40) but could not be completed. In 2004 and 2005 these trenches were re-excavated and slightly enlarged, with the specific purpose of obtaining uncontaminated dating evidence for the Forum that would strengthen the late fifth-century date for the Macellum/Forum based on the earlier excavations, with the building programme of Anastasius as the most probable historical context. In spite of modern disturbance it proved possible to record a succession of earlier structures of the early and middle Roman Empire. It was also possible to establish a connection between the remains in the two trenches (FIG. 13). The following account of the two trenches describes the levels in descending order, followed by the phasing of each based on ceramic evidence beginning with the earliest, all with reference to relevant plans, sections and pottery profiles (FIGS. 7–12; PLATES 45*c*–48).

A. EXCAVATIONS IN 2004 SOUTH OF THE ROTUNDA

In May 2004 a trench of the earlier excavations on the south side of the Rotunda was re-excavated and enlarged to dimensions of $c.4 \times 3$ m (FIG. 7; PLATE 45 *c*). Most of the upper levels in the four conjoining profiles (FIG. 8 *a–d*) had been removed across the trench by the earlier excavation to a depth of $c.2$ m, making it necessary to employ a separate recording sequence for the north, south and west profiles (*a–c*) from that for the east (*d*).

In the west profile (*b*) the level representing the make-up for the Forum level was a much-contaminated deposit of dark soil (Context 1) but a lighter and cleaner deposit towards the south of the section (C3) contained fragments of brick and tile, wall plaster and marble fragments, while a compacted mortar level separating these two (C2) may be of modern origin (PLATE 46 *a*). In the south (*c*) the first uncontaminated level was a deposit of mortar

mixed with sand (C16) above the first floor level in the west section (C12), where two levels of compacted mortar (C12 and C20) were separated by a thin deposit of light brown clay (C18).

Below these levels were deposits of architectural debris, deriving from the demolition of the last buildings to occupy the area prior to construction of the Forum, visible in both west (*b*) and south (*c*) sections. In the former these levels were cut by the robbing trench (C36) whose fill was sealed by the levels of the Forum make-up (C12 and C20). To the north of this feature the architectural debris (C28) contained a significant deposit of pottery in the north (*a*) and west (*b*) profiles. South of this robbing trench the levels of architectural debris (C33–35) included deposits of green, brown and yellow clay, along with tile, stone and plaster, that are also visible in the north profile.

Similar deposits were present on the south (*c*) and east (*d*), including roof tiles (C19), plaster (C21) above a deposit of burnt material containing mortar fragments (C24), and others (C25–26) containing many bricks, tiles and clay deposits. In the west (*b*) the lowest courses of the robbed-out wall (C42) survived to a height of c.0.45 m and consisted of mortared bricks and stone (FIG. 7) that appear to have defined on the south a floor of heavy

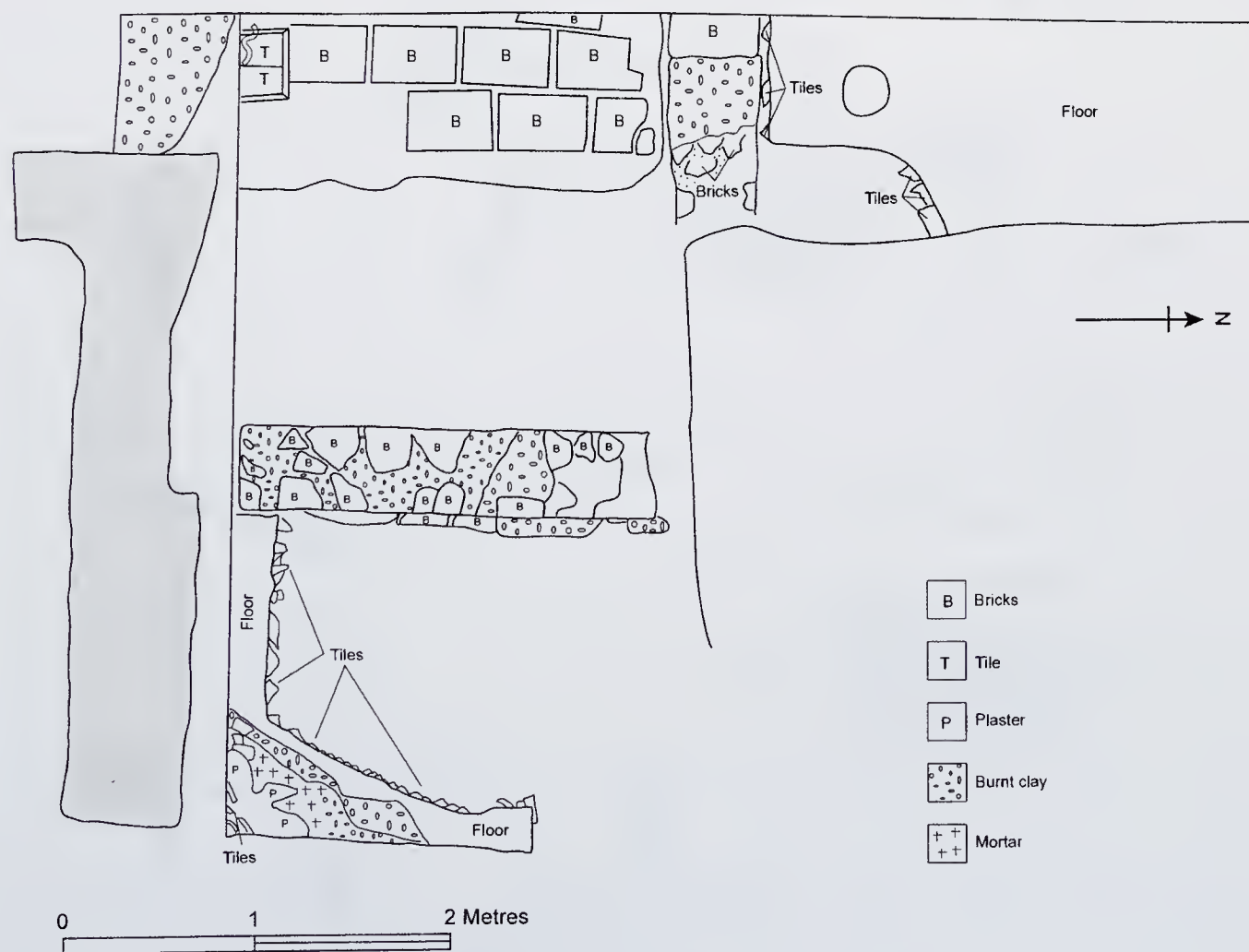


FIG. 7. Plan of 2004 excavations south of Rotunda.

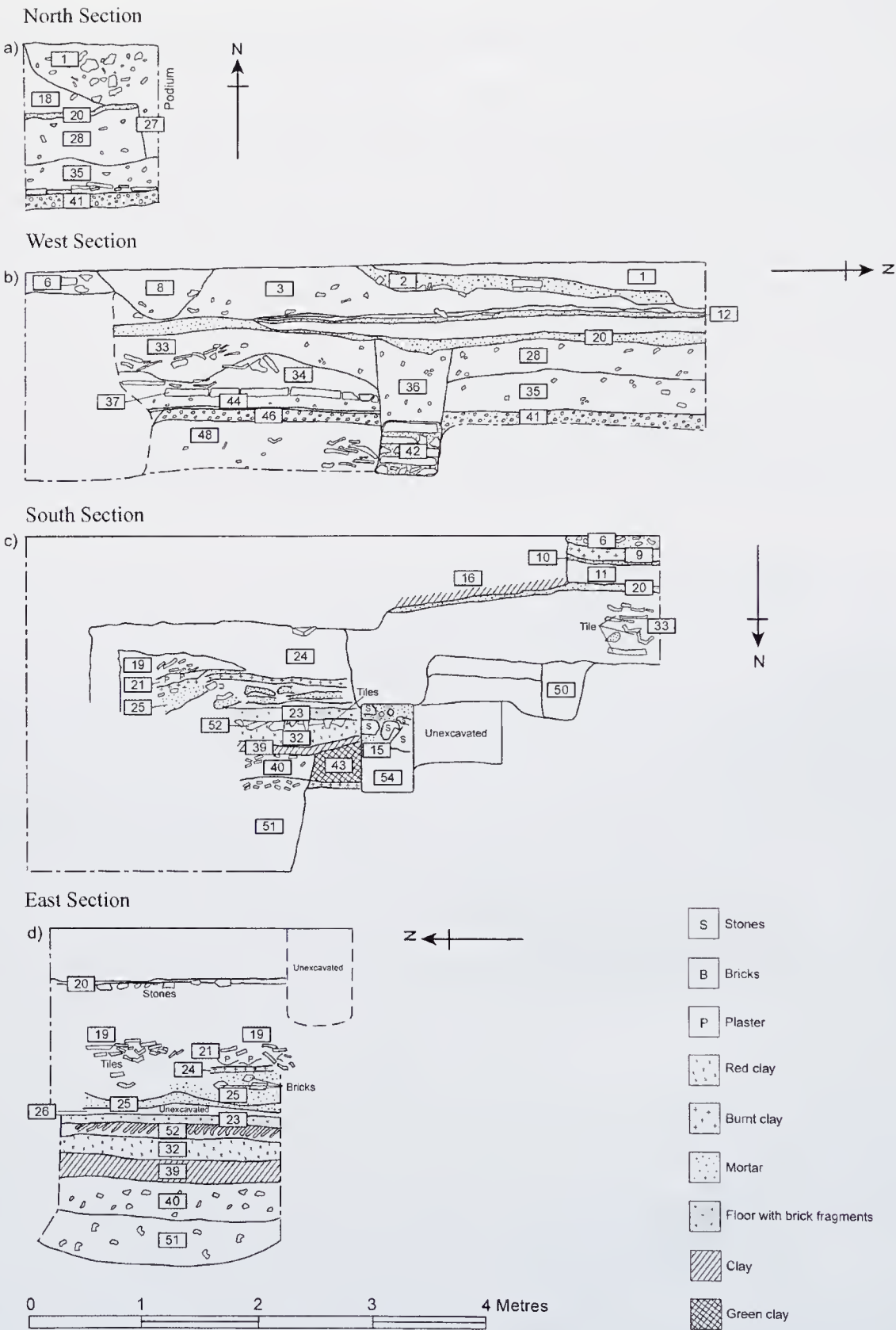


FIG. 8. Section profiles of 2004 excavation: (a) north section; (b) west section; (c) south section; (d) east section.

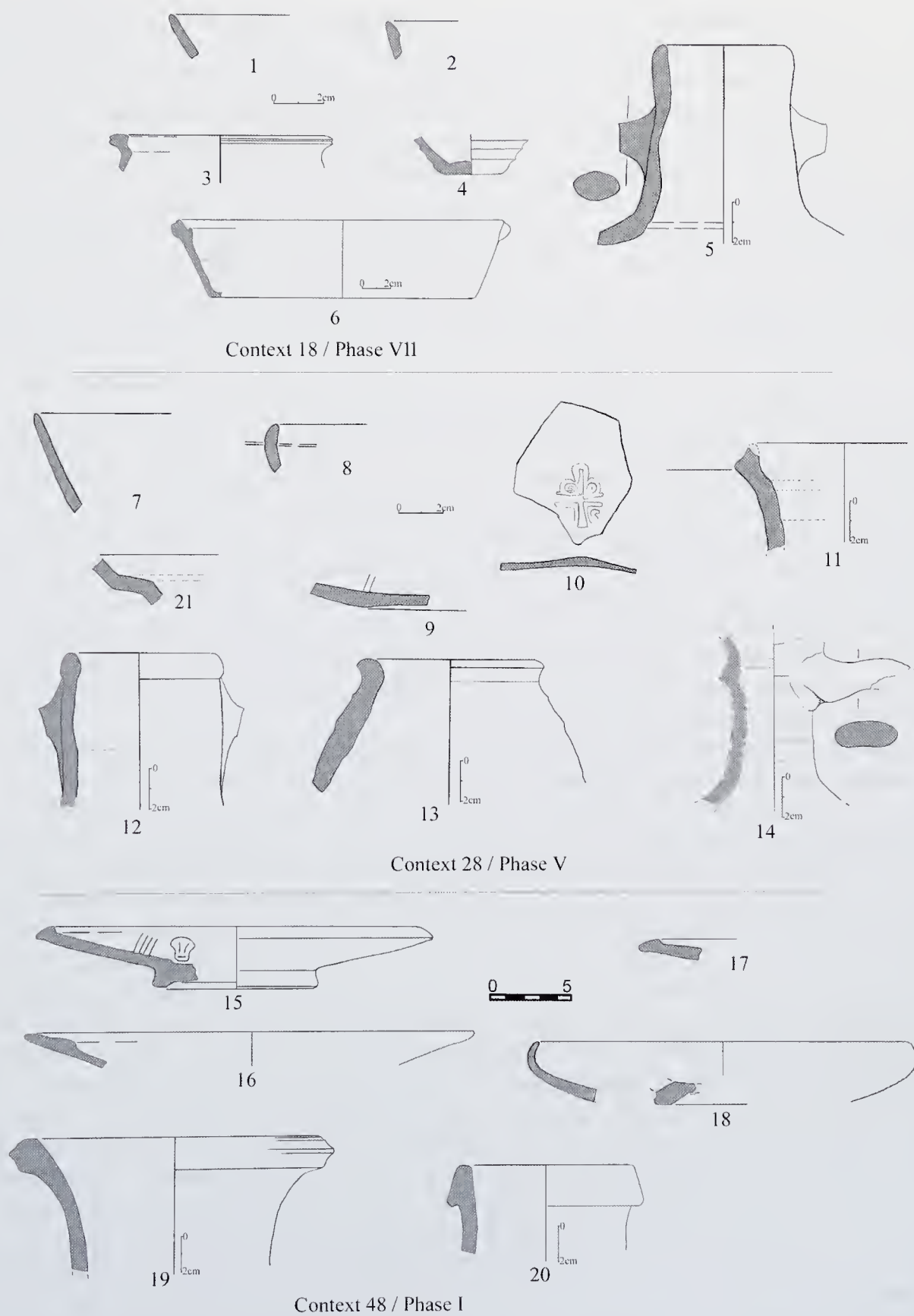


FIG. 9. Pottery evidence from 2004 excavation.

Roman bricks (*sesquipedales*, 0.45 × 0.30 m × 70 mm) laid at a depth of c.1 m (C37) (PLATE 46 b).

To the east (d) a well-preserved floor of *opus signinum* (C23) was laid on a bed of diagonally pitched bricks (C52) about 1.50 m below the Forum level (FIG. 7). This floor surface appears to have been defined to the west by the north–south wall (C15), constructed of mortared bricks on a foundation of round stones and pebbles bonded with clay (PLATE 46 c). Most of the floor within this area of the trench had been removed by an excavation of uncertain date (PLATE 46 c). Within the resulting pit a level of yellow-green clay (C40) contained a quantity of Roman pottery and a denarius of the late second to early third centuries (FIG. 8 c, d). Below this again another deposit of clay (C51) contained, in addition to brick and tile fragments, a deposit of early Roman pottery, though this was contaminated by material of the late second to third centuries.

In the south-west of the trench the floor of large bricks (C37) already described was found to have been laid above a demolition deposit containing brick, small stones and burnt material (C44). Below this, and on either side of the robbed east–west wall (C42), was a floor of *opus signinum*, mortar and crushed bricks, laid on a bed of diagonally pitched bricks (FIG. 8 b). That to the north (C41) was a compact solid surface (FIG. 8 a–b) but that on the south (C46) was much less compact and contained some clay and may have been the make-up for a surface subsequently removed. Below the latter on the south was yet another demolition deposit (C48) of brown clay with burnt material, tiles, bricks, pottery and animal bones (FIG. 8 b). The earliest levels located in 2004 lay deep in the large pit cut into the floor in the eastern part of the trench (FIG. 7; PLATE 46 c) and consisted of a deposit of green clay (C43), almost devoid of artefacts, the only sign of activity being a deposit of burnt material adjacent to the north–south wall (C15).

Despite the problems encountered during the excavation, it proved possible to construct a sequence of phasing based on deposits of pottery from reasonable secure contexts.

Phase I (FIG. 9. 15–20) consists of the pottery recovered from the lowest levels of the deep pit in the east of the excavation (FIG. 7). Amphorae include Lamboglia Type 2 (second/first century BC–early first century AD; Bruno 1995, 95, 96, 103, 106; Shehi 2003, pl. 2 fig. 7–8; Sciallano and Sibella 1991, p. 35) (FIG. 9. 20), a neck fragment of Mana Type C2B (c.125 BC–AD 30/50; Sciallano and Sibella 1991, p. 73) (FIG. 9. 19). Fine wares include several vessels in an inferior black slip, typical of late Hellenistic types at Durrës (third–first century BC; Hidri 1976, 249, Tab. 1, FIGS. 11–13) (FIG. 9. 16–17) and a plate in red slip that is a local imitation of a Hellenistic form (FIG. 9. 15). These replaced black glaze from the first century BC and continued to be produced in traditional forms (Hidri 1976, 249, pl. 1 fig. 13). The early deposit included also Eastern Sigillata from Syria Palaestina, in a cream fabric with reddish-brown slip (FIG. 9. 18), in a form that is rare at Durrës (*Atlante* 1981–5, ii, form 38, pp. 31–2, pl. 5, 15), and a thin-walled bottle from central Italy (mid second–mid first century BC; *Atlante* 1981–5, ii, type 1/1, 1/359, pp. 243–4, pl. 78. 1–3). The small number of cooking wares, most modelled in Hellenistic forms, included a fragment of Pompeian red ware (late first century BC to early first century AD; Goudineau 1970, 168, pl. 2, fig. 21) and the neck fragment from a biconical vessel with signs of vitrification on the inner surface caused by overfiring.

Phase II is represented by the east–west wall (C42), later robbed out (FIG. 7), whose original construction of stone bonded with mortar is typical of the Hellenistic period in Durrës (for

example at nearby Parku Rinia, and in the Hellenistic necropolis; Tartari 1988), while a later reconstruction in brick belongs to the early Roman period (first–second century AD). The better preserved north–south wall (C15) (FIG. 7) is part of a single Roman construction of the mid-1st century (AD 30/40–60/70; Tartari 1988), to which a wall located in 2005 (C12) that continues the same north–south line (FIGS. 10, 13) seems likely to belong.

Phase III is represented by the levels of demolition (FIG. 8*b*) on the earlier floors (C44 above C46, C35 above C41), both rich in pottery, painted wall plaster and architectural debris. Pottery forms include Hayes 50A (AD 240–325) and Hayes 23 (second–third centuries AD), plain wares with a red slip on the outer surface, amphorae (LR1 and LR4) and some Tunisian products. Together these identify a deposit of the late third or early fourth centuries.

Phase IV is represented by the floor of large bricks (C37), possibly a later phase of occupation within the earlier building, though no occupation material associated with it could be identified (FIGS. 7, 8*b*).

Phase V (FIG. 9. 7–14, 21) is the demolition deposit of the previous phase and consists of three levels (C33 and C34 in the south = FIG. 8*b*), C28 in the north = FIG. 8*a*), rich in pottery (ARS and Phocaean products) and other occupation material. Diagnostic items include Hayes 50(A–B) (FIG. 9. 7), Hayes 67 (AD 360–470) (FIG. 9. 21), Hayes 61 (B) (AD 400–50) (FIG. 9. 9), Hayes 27 (AD 160–220) (FIG. 9. 8), Hayes 23 (mid second–early third century; Hayes 1972, 69–73; 112–16, 100–7, 49–51, 45–8). Phocaean products include a base fragment impressed with a Greek cross (mid-fifth century) (FIG. 9. 7) and two others of the same period (Hayes 1972, 363, figs. 78 no. 67*j*) (FIG. 9. 4). Residual items included Eastern Sigillata A and B, and black glaze. Many of the numerous amphora fragments could not be identified but rim and body fragments of Keay Type 52 (FIG. 9. 12) common in the fourth–fifth centuries but rare in the sixth, were present (Keay 1984, 267–8, fig. 114/4; Robinson 1959, pl. 32, M323; Pacetti 1998, 185–205). Unidentified amphorae forms include one with external roll rings above a band of grooves at the join of rim and neck (FIG. 9. 12) and another on which the grooves are barely visible. Other amphorae included LR4 (FIG. 9. 13) and there were indications of the presence of LR1, 2 and 3 (Riley 1981, 115–22; Arthur 1998, 157–79; Reynolds 1995, 71–83). Among plain wares there were many fragments with red and brown paint (FIG. 9. 14) and several types of cooking vessels not readily identifiable.

Phase VI is the fill (C36) of the robbing trench (FIG. 8*b*) of the west–east wall (C42) which yielded no datable finds (FIG. 7).

Phase VII represents the material deposited before the construction of the piazza, but subsequent to the excavation of the Rotunda foundation, in order to establish a level surface on a site that slopes naturally from west to east. Most of the pottery consists of residual items, fine wares including Black glaze and Eastern Sigillata (A and B), ARS types including Hayes 50 (A and B), 23 (B) (FIG. 9. 1–2), amphorae (LR2–4), and cooking pans with flat base (Semeraro 1992, 67 no. 4: 1/291; Riley 1979, 243–4, fig. 98) (FIG. 9. 3), high concave rim with seating for a lid, a cooking pot with grooved rim, a second–third-century type common in Durrës (Semeraro 1992, 69 fig. 4: 2/312; Reynolds 2003, 374).

B. EXCAVATIONS IN 2005 NORTH OF THE ROTUNDA

In May 2005 the earlier trench north of the Central Rotunda was re-excavated and extended to 3.70 m on the west (FIG. 11*a*), 5.50 on the north (*b*), 3.00 on the east (*c*), while the south limit consisted of the podium of the Central Rotunda (FIG. 10; PLATE 47*a*). It proved

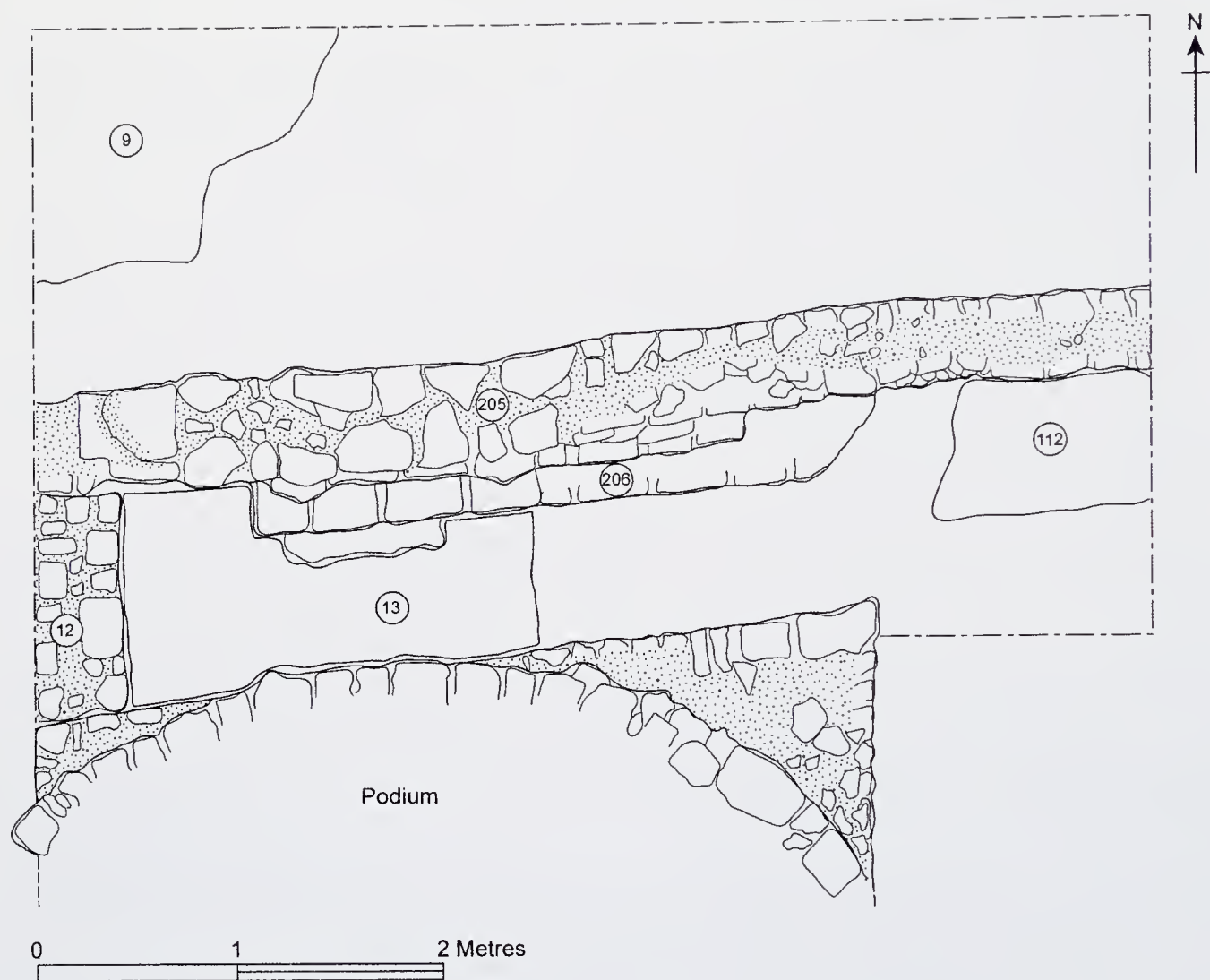


FIG. 10. Plan of 2005 excavations north of Rotunda.

impracticable to examine the north area of the trench on account of the complexity of structural remains, and examination of the deeper levels was confined to the area adjacent to the Rotunda that was defined on the north by the east–west wall (C205/206). As in 2004 because of the removal of levels by the earlier excavation it proved necessary to make separate records of the strata on the west (C1+), east (C101+) and north (C201+) sides of the trench.

The principal structure within the trench were the two phases of an east–west wall, the earlier (C206) constructed in coursed bricks (0.26 – 0.32 m), the later in larger bricks (0.44 – 0.32 m) that also blocked two entrances of the earlier phase (FIG. 10; pl. 20). It also proved impossible to investigate and record the lowest strata between this wall and the north face of the Rotunda podium, since both west (FIG. 11 *a*) and east sections (FIG. 11 *c*) were occupied by the faces of the wall and robbing trenches above these. That on the west (C12) (FIG. 10 and PLATE 48 *a*) butted on the north against the east–west wall (C205) and to the south had been cut by construction of the podium. This wall has the same alignment as a wall located in 2004 (C15) on the other side of the Rotunda (FIGS. 7 and 13; PLATE 48 *a*). At the east the section

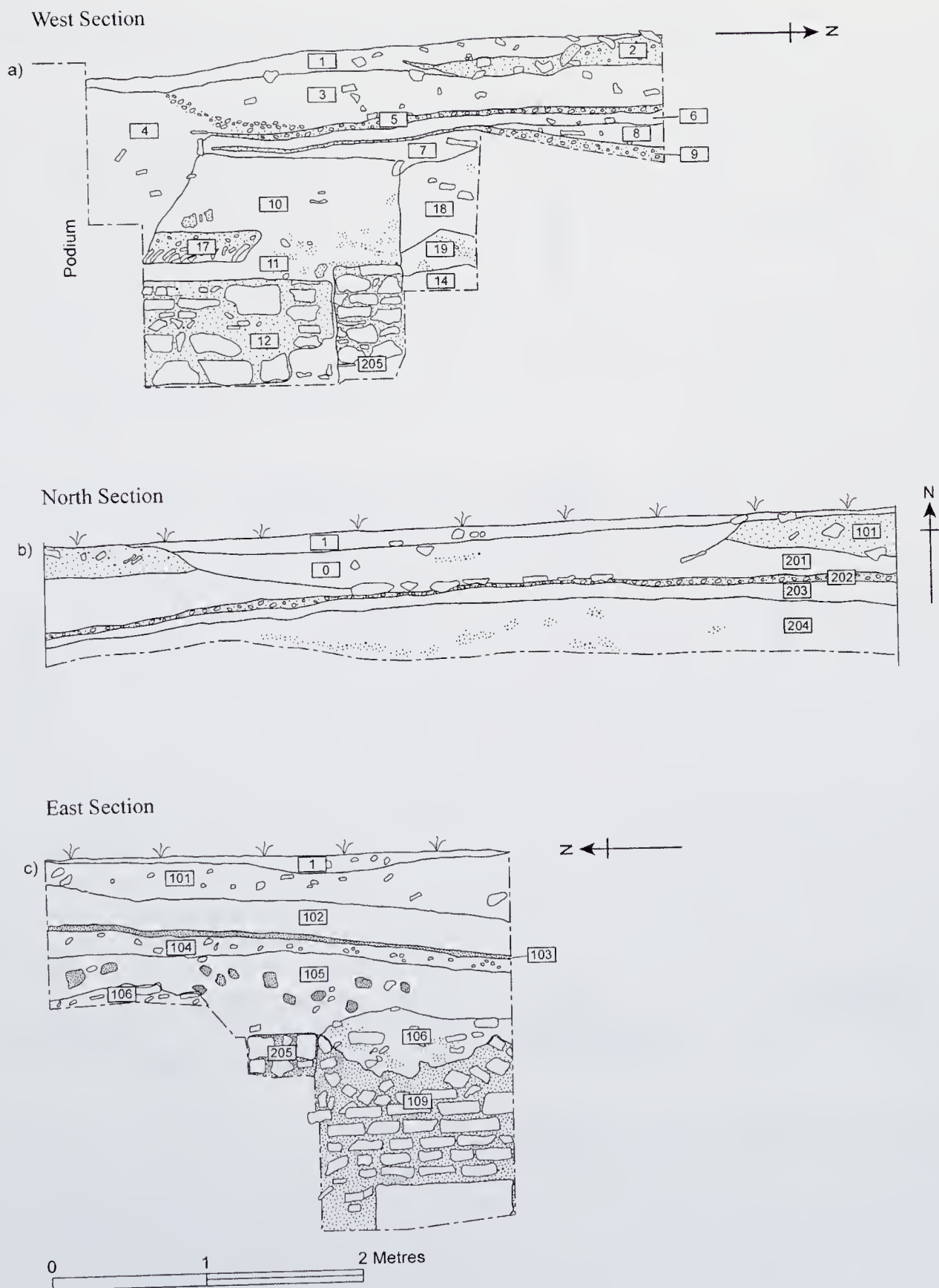


FIG. 11. Section profiles of 2005 excavation: (a) west section; (b) north section; (c) east section.

(FIG. 11 *c*) coincided with the face of another north-south wall (C109), the upper surviving part of which appears to have been faced with the familiar net pattern of small bricks (*opus reticulatum*) (PLATE 48 *b*).

The backfill of the earlier excavation (Context 1) was present in all three sections as a thin capping above the make-up for the Forum surface, that consists of two levels, one of white mortar (C2 = 101), above a thicker layer of greenish-brown clay containing architectural debris, bricks, tiles and burnt material (C3 = 102 = C201) visible in all three sections (FIG. 11 *a-c*). These sealed the construction trench of the Rotunda podium (C4) visible in the west section (FIG. 11 *a*). Below these, and cut by the podium construction trench, were levels of architectural debris (C5 = C103 = C202), a deposit of brown soil (C6 = C104 = C203) and a compact level of green clay containing many fragments of mortar (C8 = C105 = C205), also visible in all three sections. In the north-west angle of the trench (FIG. 10) a solid mortar surface (C9) was observed also in the west section (FIG. 11 *a*) above what proved to be a significant occupation deposit (C7) of brown soil containing some architectural debris, pottery and animal bones.

Further excavation of deeper levels was confined to the area in the south of the trench between the east-west wall (C205/C206) and the north face of the podium (FIG. 10; PLATE 48 *b*). Below the occupation (C7) already noted was a solid deposit of architectural debris (C10 = C106), present in both sections (FIG. 11 *a, c*), and containing entire roof tiles (*imbrices* and *tegulae*) and fragments of painted plaster above a solid floor of *opus signinum*, above a bed of diagonally pitched bricks visible only in the west section (FIG. 11 *a*), similar to that located in 2004 (C23) (FIG. 8 *d*; PLATE 46 *c*). An adjacent deposit visible in both east and west sections (C11 = C107) contained many roof tiles fired in yellow clay but seems likely to be a part of the other deposit on the evidence of conjoining pottery fragments. These levels clearly represent the collapse of a structure whose partly robbed walls they overlie (C12, C205 and C109). In the west section (fig 11a) the filling of a later robbing trench (C14, C18 and C19) north of the east-west wall (C205) contained material similar to that of the destruction already described (C10 and C11). In the west half of the trench within the angle formed by the walls (C12 and C205) was a second floor (C13) of *opus signinum* (FIG. 10), below which lay yet another layer of architectural debris (C15), not visible in either section, containing roof tiles, bricks and wall plaster. At the east end in the angle formed by two walls (C109 and C205), was a surface of grey-white mortar (C112) (FIG. 10), laid upon a bed of diagonally pitched bricks containing some burnt material. Removal of both these surfaces revealed a large deposit of greenish clay containing pottery and burnt material (C16 = C111), not recorded in either profile, being enclosed within standing structures on all four sides (podium on the south, wall C12 on west, C205/C206 on the north and wall C109 on the east).

In the matter of phasing there was a broad correspondence between the phases identified in the 2005 excavations and those of 2004.

Phase I (FIG. 12, 16–20) is represented by an occupation deposit (C16 = C111) alone with no associated structures. This contained a plate of type 4A in Eastern Sigillata A from Syria Palaestina (end of second century BC – c. AD 10/20 (FIG. 12, 17); *Atlante* 1981–5, ii, p. 16, pl. 1. 9; Shehi forthcoming), accompanied by a number of possible local red-slip wares (FIG. 12, 16, 18–20), a pan in Pompeian Red ware (c. 90–50 BC), amphorae of Lamboglia Type 2 (late second century BC–early first century AD; Bruno 1995, 95–6, 103, 106; Shehi 2003, pl. 2 figs.

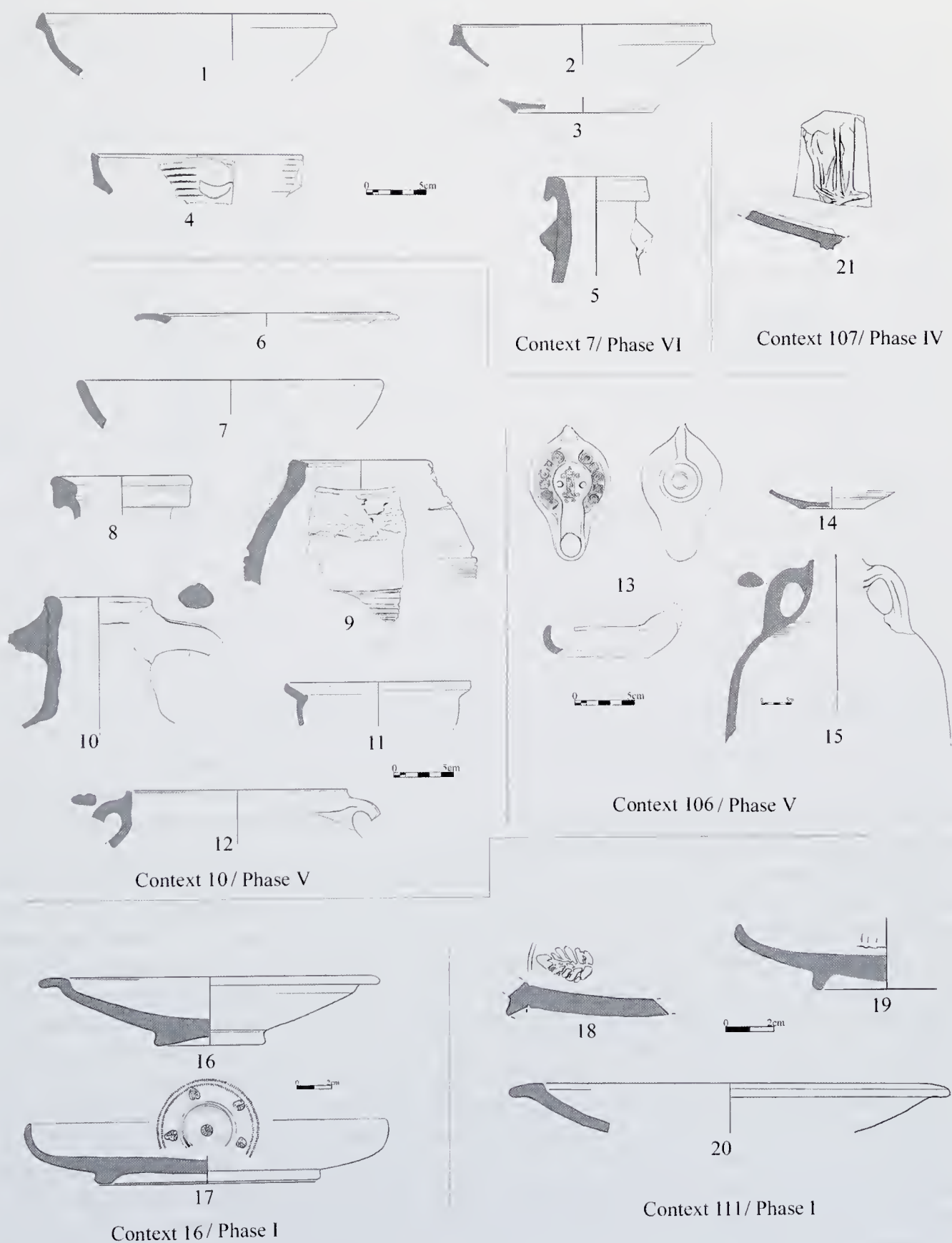


FIG. 12. Pottery evidence from 2005 excavation.

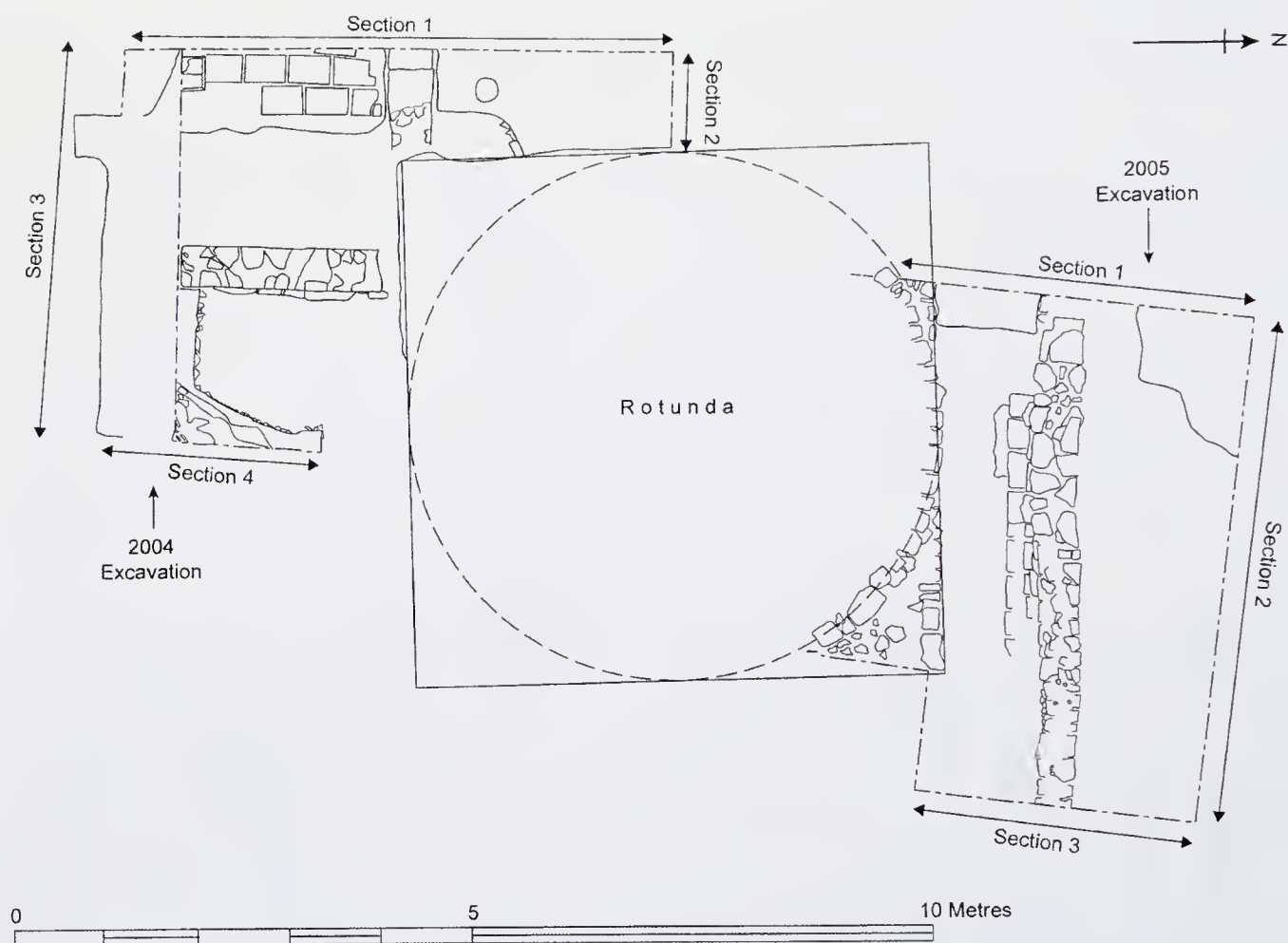


FIG. 13. Consolidated plan of earlier structures in vicinity of Rotunda.

7–8; Sciallano and Sibella 1991, 35), Dressel 2–4 and Greco-Italian products, which together indicate a date in the first half of the first century BC.

Phase II is represented by the earliest Roman structures, consisting of walls and floor surfaces above levelling deposits (C15 and C113), and these include the earlier phase of the east–west wall (C206), a floor surface (C112) that may be associated with the wall in *opus reticulatum* (C109), a floor (C13) and the later blocked entrance following the reconstruction of the east–west wall (C205). Unfortunately the associated deposits do not provide good dating evidence for this first structural phase. Locally produced vessels in poor quality black slip (third to first centuries BC) and red slip, also probably a local product, are associated with Dressel 2–4 amphorae and appear to indicate a date late in the first century BC (Hidri 1976, 249, pl. I FIGS. 11–13; Shehi 2004, 22–26). On the other hand, locally produced cooking ware with grooved rim (Shehi 2004, Form 3, 46–49), along with an Aegean casserole (second century AD), indicate a later date. On balance these structures seem likely to belong in or after the middle decades of the first century AD, that is following a general change in building methods that is known to have taken place in Durrës (Tartari 1988, 91–108; Hidri 1986, 99–113).

Phase III was marked by the cutting away of the existing floor surfaces (C13 and C112) but the associated levels, evidently contaminated, did not provide firm dating material (black and

red slip, and a Phocaeen red cup of Hayes 3C). The principal element of this phase is the reconstruction of the east–west wall (C205), on a line parallel with a similar reconstruction noted in the 2004 excavation (C42), while that of the north–south wall (C12) is aligned precisely with that of 2004 (C15). Also belonging to this second structural phase in the 2005 excavation were a floor (C17) of *opus signinum* laid on a bed of pitched bricks, identical in character with that recorded in 2004 (C41 and C23). While dating evidence for this phase was lacking in 2005, that which was recovered in 2004 (C35 and C44), indicating an abandonment in the late third or early fourth centuries (Phase IV below), can be taken as valid for the remains in both trenches.

Phase IV (FIG. 12, 21) represents the demolition material (C11 = C107) from the structures of the preceding phase and can be linked with the larger deposits recovered in 2004 (C33 and C34). In both areas there were signs of damage on a large scale that occurred at some time during the fourth century, possibly the major earthquake known to have struck the area in AD 346. The small amount of dating evidence recovered in 2005 included an ARS form with appliqué decoration (FIG. 12, 21; Hayes 53A, dated AD 350–430; Hayes 1972, 82; Shkodra forthcoming).

Phase V (FIG. 12, 6–15) is represented by a deposit of roof tiles (C106) from earlier structures that contains securely stratified pottery of the late fifth and early sixth centuries that is a key for the date of the circular piazza (Shkodra forthcoming). The material includes an African lamp (*Atlante* 1981–5, i, Form X, pp. 200–3; Ennabli 1976 no. 1258; Bonifay 2004, 382–6, FIG. 214, 28) (FIG. 12, 13), a dish in Phocaeen red slip (FIG. 12, 14) (Hayes 3; Hayes 1972, 336–7), whose variants (A and B) emerge before AD 450, and African amphorae (FIG. 12, 15) common in the western Mediterranean in the mid fifth–mid sixth centuries (Panella 1993, 645; Bonifay 2004, 135 fig. 72a, 1; Keay 1984, 240 fig. 100). The robbing trench (C10) of the east–west wall (C205) was backfilled with a mix of the earlier demolition deposit (C106) and contained residual material. This included fine wares (Hayes 44 = FIG. 12, 6, dated mid–late third century, and Hayes 9), a fragment of Eastern Sigillata, black glaze and local imitations of sigillata but also a fifth-century type (Hayes 50B/64 = FIG. 12, 7; Shkodra forthcoming). Amphorae included a small form (*spatheion*) of African origin (FIG. 12, 8) (Bonifay Type 2/variant A; Bonifay 2004, 125–7, fig. 68, 5–6) and among coarse wares an Aegean casserole (FIG. 12, 11) (a version of Fulford Casserole 35), first recorded in the late fifth century at Marseilles (Bonifay 1986, Period 2A1), and another with a vertical rim in a hard grey fabric matching an example from Butrint found in a sixth-century context and with a proposed origin in Samos, a type also present in the sixth-century levels of the Macellum (FIG. 12, 12) (Reynolds 2004, 234 fig. 13, 235; Shkodra 2005a, 144, fig. 12, 3).

Phase VI (FIG. 12, 1–5) consists of a deposit of brown soil (C7) which sealed the earlier wall-robbing trench and which also contained a securely stratified deposit of the late fifth–early sixth centuries (Shkodra forthcoming). Pottery in this level included ARS forms (a late version of Hayes 61 B) (FIG. 12, 1), East Mediterranean Red Slip (Hayes 3E; Bonifay 2004, 170–1; figs. 91, 33; Fulford and Peacock 1984, 49 fig. 1) (FIG. 12, 2–3), both common in deposits of the late fifth and early sixth centuries, a form of small amphora (*spatheion*) with square-section rim (FIG. 12, 5) (Bonifay Type 2A; Bonifay 2004, 125–7 fig. 68, 5–6), also characteristic of the second half of the fifth century, a casserole fragment (Fulford 38) (FIG. 12, 4), recorded in late fifth-century contexts at Marseilles and at Carthage in the mid-sixth (Fulford and Peacock 1984, 189, Period 1).

Phase VII is the fill of the construction trench of the Rotunda podium (C4) which cut through a spread of mortar and brick fragments (C5), representing the ground surface at the time of construction. Above this were later spread deposits (C2 and C3) that served to make up the level for the piazza floor. In addition to many residual items (Hayes 50A 181B, 196; also Eastern Sigillata B), along with a bronze coin of the early fourth century (Constantinople, minted AD 330–3), from earlier phases these deposits contained some types from the period of the construction of the Rotunda and piazza (amphora types: Keay XXV, LR 1–4; Shkodra, forthcoming).

IV. CONCLUSIONS (BY JOHN WILKES)

The detailed record of the surviving architectural elements (Section II) and the completion of two earlier trenches adjacent to the Rotunda at the centre of the circular Forum (Section III) mark a further stage in the study of what is unquestionably a major public monument of the Early Byzantine era at the heart of a city that more often than not was close to the main current of imperial history.

The two trenches adjacent to the Rotunda revealed structures that had existed on the site prior to the construction of the Forum, from the period between the founding of the Roman colony (c.30 BC) and some major catastrophe, perhaps the earthquake of AD 346. Then a wholesale destruction in the area was apparently followed by a period of abandonment. If the earthquake was the occasion of this destruction, the period of dereliction lasted for a century and a half until the imperial recovery of the late fifth century, a period of impoverishment as regards the urban fabric and its renewal. At the turn of the fifth century Alaric and the Visigoths were certainly in the area, while later in the same century Dyrrachium was seized more than once by the Ostrogoths.

Before the construction of the Forum, the earliest deposit (C51) came from the deep pit in the 2004 trench (FIGS. 7, 8 *a*) and dates to the late Hellenistic era (*Phase I*). The earliest from the 2005 trench (C16 = C111) appears to be slightly later (*Phase I*). Neither can be associated with any surviving structure. The earliest structure appears to be the first phase of the east–west wall (C42) in the 2004 trench, constructed in a stone and mortar technique characteristic of the late Hellenistic period in Dyrrachium, though the later rebuild belongs to the early Roman era (*Phase II*). This is likely to be contemporary with the north–south wall (C15) in the same trench and appears to have continued north beyond the later Rotunda podium (FIG. 13) where it was located in the 2005 trench (C12) and belonged to a second structural phase (*Phase III*). The first structural level in the latter trench (FIG. 10) is represented by the floor surfaces (C15, C113), the earlier phase of the east–west wall (C206) and a floor associated with the wall in *opus reticulatum* (C109), that seem likely to belong to the middle of the first century AD (*Phase II*).

The first demolition level in the 2004 trench (*Phase III*) and in 2005 (*Phase III*) are dated in the former to the late third century, although there is no definite context for the floor of large bricks (C37) in the south-west of the 2004 trench (FIG. 7). A second phase of demolition present in both trenches, in 2004 (*Phase V*) and in 2005 (*Phase IV*) is most likely to be linked with a major destruction in the fourth century, possibly the earthquake of AD 346.

The deposits prior to the construction of the Forum, in 2004 (*Phase VII*) and in 2005 (*Phases V and VII*), contained stratified pottery of the late fifth–early sixth century and must

now represent the firmest evidence for a probably link of the entire complex with the building programme of Anastasius.

The Dyrrachium Forum can be compared with the Curved Forum constructed by Constantine on the main axial street of his new capital on the Bosphorus, c.600 m west of the great imperial square (Tetrastoon). The only relic of this is the great porphyry column surmounted by his statue that stood at the centre and now survives in a much mutilated condition (Fowden 1991). The parallel between Dyrrachium and Constantinople now appears all the closer, with the discovery in 2005 that the foundation of the Rotunda podium was a massive structure that extended at least 3 m below the level of the Forum. That must point to a more massive superstructure than the imperial statuary group that has been suggested earlier and it would be an appropriate gesture for Anastasius to place a monumental column at the heart of his native city, in emulation of Constantine.

The discovery, excavation and continuing study of this significant monument is a major achievement by Albanian archaeologists, working at times in difficult conditions. Along with its walls, the circular Forum places Dyrrachium in the first rank of cities in the revived Byzantine world of the late fifth and sixth centuries.

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INDEXES

compiled by Graham Shipley

The introductory notes to the indexes in volumes 101 and 102 apply.

Ar	archaic	LR	Late Roman
BA	Bronze Age	MC	Middle Cycladic
Byz	Byzantine	Med	medieval
Cl	classical	MH	Middle Helladic
Cyc	Cycladic	MM	Middle Minoan
EByz	early Byzantine	Nl	Neolithic
EC	Early Cycladic	Or	orientalizing
G	Geometric	PC	Protocorinthian
geom.	geometric (Cycladic BA pottery)	PG	Protogeometric
Hl	hellenistic	PGB	Protogeometric B
IA	Iron Age	R	Roman
LC	Late Cycladic	SF	small find
LH	Late Helladic	SM	Submycenaean
LM	Late Minoan		

Periods are subdivided by the prefixes E (early), M (middle), and L (late): e.g. EPG = early Protogeometric. Some of these combinations, however, are listed above as periods in their own right: e.g. LH. Centuries (which are BC unless AD is appended) are subdivided by the suffixes 'f' and 's', signifying first or second half (e.g. C4f); or by 'e', 'm', and 'l', signifying early/mid-/late (e.g. C5l).

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I. TEXT

1. TIMETABLE

The *Annual* is scheduled to appear in December each year.

*Articles **other than** reports on BSA-sponsored projects*

Please contact the Editor or Co-editor, stating your proposed title, the length of the article, and the number and type of illustrations (see §6, below). A draft text should be sent by **30 April** in the year **before** the intended year of publication. It should preferably already be in *BSA* format, and in electronic format. The text will then be passed to referees for comments. A summary of these comments will normally be sent to the author.

Reports on BSA-sponsored projects

If a report is to appear in the *Annual*, contact the Editor by **30 June** of the year before the intended year of publication, stating your proposed title, the length of the article, and the number and type of illustrations. Send a draft text at the same time, or at the latest by **30 September**. The text will be subjected to the same refereeing process as above.

Short preliminary reports may appear sooner if offered first for inclusion in *Archaeological Reports*, normally published in October in the year of submission. The Director of the School or The Secretary, Society for Promotion of Hellenic Studies, Senate House, Malet Street, London, WC1E 7HU (hellenic@sas.ac.uk), will advise you.

2. FINAL VERSIONS

Submission date

Unless a different date is agreed, send the final copy to the Editor by **30 September** in the year before publication, to allow time for editing. Acceptance for publication is subject to the final text and illustrations being satisfactory.

Before an article is accepted, authors must supply details of illustrations or other material for which they do not have copyright (see §22).

Layout and format

As far as practicable, text must conform to the conventions of the *Annual* embodied in these notes. Submit text on CD or DVD, together with a print-out. Submissions by means of e-mail attachments may also be acceptable in some cases, but please discuss the matter with the Editor **before e-mailing**. Notes should appear as endnotes on the printout, beginning on a new page (see also §7 below). The text and notes should be double-spaced. Please use the same typeface (preferably Courier/Times) and point size (no less than 12) throughout text and notes.

The preferred format is Word, but other major word-processors and formats can be read. If in doubt, please ask the Editor before sending a disk.

3. CORRECTIONS

The Editor may emend and correct the text; his/her decision is final, but you will normally be consulted over any substantial changes.

Changes at proof stage are costly; so ensure that the text submitted represents your definitive version. Changes requested later will normally be allowed if they result from errors introduced during editing or printing. Other changes, even to rectify factual errors, will be allowed only if it is practicable to do so, and you may be required to pay for them. If they are substantial, publication of the article may be deferred.

Keep a copy of the text submitted to check against proofs; originals are not returned. Bear in mind, however, that editing changes will have been made.

4. ABSTRACTS

The Editor will suggest a word-limit for your abstract. This must be submitted together with the final text (or sooner), in English or Greek—both if possible. The Editor may emend the abstract.

5. SUBHEADINGS

Unless an article is very short, please divide it into titled sections. The sequence of headings must be logical and consistent, and follow the examples below:

THIS IS AN EXAMPLE OF FIRST LEVEL HEADING
(I.E. CENTRED)

THIS IS AN EXAMPLE OF SECOND LEVEL HEADING

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6. REFERENCES TO ILLUSTRATIONS AND TABLES

Wherever possible, art-work will be integrated within the text. If you have material that merits very high quality reproduction, this may be included as end-plates; a decision on this should be reached with the Editor at a preliminary stage.

Number any such end-plates separately with arabic numerals, PLATE 1. Other illustrations should be numbered as FIG. 1ff, similarly TABLE 1ff. (Plate numbers will be converted to a single sequence for the whole volume.)

Use capital (or small capital) letters to refer to your article: FIG. 1, PLATE 4, TABLE 2.

Use lower-case letters for other works cited: fig. 1, figs. 1–4, pl. 5, pls. 7–9.

Convert foreign abbreviations (Abb., Taf., εικ.) into fig., pl., table etc. Convert roman numbers (i, ii, I, II) into arabic. Use letters if illustrations are lettered in the original, but make them lower-case italics (*a*, *b*), or lower-case Greek if appropriate (α , β).

When a page and a figure are cited together, make it clear whether the figure is on the same page: ‘p. 256 fig. 23’ naturally means figure 23 on page 256, whereas ‘p. 256, fig. 23’ could mean either the same thing or page 256 with figure 23 on another page; if the latter, use ‘p. 256 and fig. 23’ or ‘p. 256; fig. 23’.

For items within individual illustrations use either lower-case italics or full points and numbers, as appropriate:

(for your article) FIG. 11. 4; FIG. 1 *a*; PLATE 4 *b*

(for another work) fig. 12 *a*, *c*; pl. 45. 12–13.

Note the spaces in these examples.

7. NOTES

Please try to incorporate as much as possible in the main body of the text, and avoid using footnotes, or use them as sparingly as possible. Notes will appear as footnotes in the printed volume. Ensure that they are correctly numbered. In print-outs they should appear at the end of the text, beginning on a new page.

Do not capitalize e.g. (‘for example’) and i.e. (‘that is’) at the start of a sentence or note, but at the start of a note give a capital letter to abbreviations such as cf. (‘compare’), id., and ibid. (see also §12 below): Cf.; Id.; Ibid.

‘Harvard’-style citation is used, modified as noted below, §9–10. **Where possible, place references in the text, not in the notes.**

8. ACKNOWLEDGEMENTS AND SPECIAL ABBREVIATIONS

Put acknowledgements in n. 1, followed by ‘special abbreviations’, e.g.:

Agora, xiv = H. A. Thompson and R. E. Wycherley, *The Agora of Athens: The History, Shape and Uses of an Ancient City Center* (Athens, 1972)

The Editor may advise on which ones might be suitable for your particular article; as a rule of thumb do not use a special abbreviation unless it occurs at least three times. Do not list standard abbreviations (see lists below), and **do not use special abbreviations for volumes cited for discussion of their text; here the Harvard notation should be used throughout.**

9. CITATIONS OF MODERN WORKS

'Harvard' style notation will be used for modern works with the following exceptions:

- a) corpora, dictionaries and encyclopedias
- b) other citations where reference is *purely to an illustration*, not to any accompanying text; for a list of those generally acceptable and further guidance see §23 (B).

Examples are given below of the required format for bibliographical entries in the text or notes and in the end Bibliography

Text and footnotes

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Morris, S. 1998b, 45–50;
 Morris, I. 1999, 378;
 Lordkipanidze 2002, *passim*;
 Bintliff 1977, 372–6 and map 3;
 Knox 1985, 133 n. 1;
 Popham 1964, fig. 3, pl. 28 *a, b*.

General

Do not use p. or pp. before page numbers except to avoid ambiguity.

When referring to inscriptions, use full stops and spaces before line numbers, commas between line numbers:

IG ii² 1763. 2–3, 5; *IG* v. 1. 235.

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All works cited will appear in alphabetical order in a list at end of article under the heading 'BIBLIOGRAPHY'.

Authors' names

Put points but no spaces between initials: Forrest, W.G. and Fraser, P.M.

If the author uses different initials, or spells their surname differently, in different places, follow the title page of the book or the signature of the article cited. For Greek surnames see §13.

Periodical Abbreviations

Follow the list of standard abbreviations as indicated in §23.

Titles of Periodicals, Books and articles/chapters in books/periodicals

For periodicals, italicize abbreviations (e.g. *BSA*, *JHS*, *AJA*, *BASOR*) or full title (e.g. *Anatolian Archaeology*, *Transactions of the Philological Society*, *Transactions of the Essex Archaeological Society*)

For books, italicize titles. Do not italicize series titles. Please capitalize first letters of main words in English titles and series (if series does not have its own abbreviation), as in examples below:

Rich, J. and Shipley, G. (eds) 1993. *War and Society in the Greek World* (Leicester–Nottingham Studies in Ancient Society, 4; London and New York)

Put series titles, as in the preceding example, in parentheses, and do not italicize:

... (Hypomnemata, 123)

... (BSA supp. vol. 18)

... (SIMA 24)

For titles use minimum capitalization for non-English titles (other than German nouns), but keep capital letters for names of institutions within titles. Thus:

Maiuri, A. (ed) 1950. *Pompeiana: raccolta di studi per il secondo centenario degli scavi di Pompei* (Naples).

but

Maiuri, A. 1958. 'Pompei e Nocera', *Rendiconti dell'Accademia di Archeologia, Lettere, e Belle Arti di Napoli*, n.s. 33, 35–40.

Do not differentiate foreign words within titles:

Carlsen, J. 1992. 'Magister pecoris: the nomenclature and qualifications of the chief herdsman in Roman pasturage', *Analecta Romana Instituti Danici*, 20, 59–65 [not 'Magister pecoris'].

Put article and chapter titles in roman type between single quotation marks, with minimum capitalization, as in the preceding example.

Separate title and subtitles of books or articles by a colon, as in:

Demos: The Discovery of Classical Attika.

'Perioikos: the discovery of classical Lakonia'.

Use arabic numbers for volumes of periodicals and other serial publications:

e.g. *BSA* 45.

Use roman lower-case letters for volumes of books:

e.g. Evans, J.A. 1935. *The Palace of Minos at Knossos*, iv (London).

For papers or chapters in edited volumes please follow the examples below

Evans, J.D. 1994. 'The early millennia: continuity and change in a farming settlement', in Evely, D., Hughes-Brock, H. and Momigliano, N. (eds), *Knossos: A Labyrinth of History. Papers Presented in Honour of Sinclair Hood* (Oxford), 1–20.

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Evans, J.D. 1994. 'The early millennia: continuity and change in a farming settlement', in Evely *et al.* (eds), 1–20.

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11. CITATIONS OF ANCIENT WORKS

Abbreviate classical authors and works as in *The Oxford Classical Dictionary* (3rd edn, 1996), but cite lesser-known authors in full at first occurrence. Citations should normally be included in the text.

Use lower-case roman numerals for books; arabic for chapters, sections, and line numbers. Separate all numbers by full points and spaces:

Xen. *Hell.* iii. 5. 2.

For prose works, sub-sections of chapters need not be given unless essential: Diod. xix. 19 is adequate.

12. CROSS-REFERENCES

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Avoid loc. cit., l.c., op. cit., o.c. To cross-refer to a work cited earlier use the Harvard format.

13. TRANSLITERATION, TRANSLATION, AND PRINTING OF GREEK

Use roman letters for familiar Greek and Latin terms—megaron, polis, poleis, proxenos, nymphaeum, parodos, proconsul—and for familiar anglicizations like oikist and latinizations like palaestra. Only italicize less familiar terms or keep them in Greek type. Leave any entire phrases and sentences in Greek or translate them rather than transliterating long sequences of words.

Modern Greek works

Leave in Greek, with accentuation appropriate for the date of publication; if in doubt use classical accents and breathings for works published before 1981, monotonic thereafter. Italicize Greek book and periodical titles: the printers will use a Greek italic typeface. Polytonic Greek may not survive electronic transfer; therefore be particularly prepared to supply a hard copy or a PDF file.

Modern Greek authors

Do not leave names in Greek type but transliterate using the scheme below. If, however, their name is already transliterated (e.g. in a non-Greek journal), use this form even at the expense of consistency.

Transliteration scheme

Use your discretion in transliterating Greek, but aim at consistency. The preferred system is as follows:

Modern Greek. For α ε ζ θ ι κ λ μ ν ξ ο π σ/ς τ ψ ω use the natural equivalents *a e z th i k l m n x o p s t ps o*. Transliterate other letters as follows:

αι	<i>ai</i>	Μπ (initial)	<i>B</i>
αυ	<i>af/av</i> as appropriate	μπ (medial)	<i>mb/mp</i> as appropriate
β	<i>v</i>	νδ	<i>nd</i>
γ	<i>g</i>	Ντ (initial)	<i>D</i>
γγ	<i>ng</i>	ντ (medial)	<i>nd/nt</i> as appropriate
Γκ (initial)	<i>G</i>	οι	<i>oi</i>
γκ (medial)	<i>ng/g</i> as appropriate	ου	<i>ou</i>
γχ	<i>nch</i>	ρ	<i>r</i>
δ	<i>d</i>	φ	<i>ph</i>
ει	<i>ei</i>	χ	<i>ch</i>
ευ	<i>ef/ev</i> as appropriate	υ	<i>y</i>
η	<i>i</i>	υι	<i>yi</i>

Examples: Agios Andreas, Agioi Anargyroi, Geraki, Gytheio, Agia Eirini, Agios Vasileios, Phlomochori; but when a site is well known under another form, retain it.

Use an acute accent to indicate stress if desired.

Ancient Greek. Retain familiar forms—Thucydides, Athens, Peloponnese, Corinth—but modify those that can easily be made more ‘Greek-like’: Aigina, Kimon, Pheidias, Perikles, Kyme.

Use Greek-like forms also for less familiar names: Kyzikos, Thrasyboulos, Pittakos.

Avoid Latin versions (except in a Roman context, if necessary): use Menelaion (not Menelaëum), Heraion (not Heraeum), Asklepieion (not Asclepieum).

Avoid hybrids like Attika, Korinth.

When using Greek type, ensure that accents and diacriticals are correct.

Do not italicize names of the letters: type alpha, beta, gamma, phi, chi, psi, omega.

Printing of Greek

Greek on disk can get lost in file translation, as noted above. Ensure that it is clear on the print-out. If necessary, use a typewriter or clear manuscript to insert it, or send a PDF file.

14. EPIGRAPHIC MATERIAL

In transcribing inscriptions, use symbols adopted in Meiggs and Lewis, *Greek Historical Inscriptions*. If text is to be printed stoichedon, write a note on the print-out.

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Normal epigraphic characters such as angle brackets, braces, and dots can be printed, but not broken letters or some non-standard characters (e.g. numerical symbols in tribute quota lists); these should be drawn as artwork on separate sheets.

15. FOREIGN (NON-GREEK) LANGUAGES WITHIN THE MAIN TEXT

Italicize foreign words and short phrases amounting to technical terms, without quotation marks: de Polignac’s theory of *sanctuaires périurbaines* ...

Leave whole quoted sentences, phrases with a grammatical structure, and words attributed to an author in roman type within single quotation marks: de Polignac claims that ‘Les sanctuaires périurbaines étaient ...’. If in doubt, leave unitalicized.

16. TABLES

Submit tabular material on separate, unnumbered pages. Do not use horizontal or vertical grid-lines. Put a marginal note in the text to indicate where a table is to be inserted, e.g. 'Table 1 near here'.

Put captions on a separate sheet and in a separate disk file (see §19).

11. ILLUSTRATIONS

17. LINE DRAWINGS

Electronically generated copies are now favoured, rather than submitting inked originals for reduction and scanning. These should adhere to a minimum standard dpi (dots per square inch). **Minimum is 400 dpi.** But recommended standard is to scan at 1200 dpi, and then reduce to 800 dpi after cleaning. Anything less than 400 dpi is not acceptable. Please use TIFFs, not JPEGs. Please submit hard copies also, annotated with figure number, author's name and article. Photocopies may be initially submitted for the use of referees.

Maps, pottery profiles, other line drawings and most photographs are printed in the text as figures. Photographs can also be printed on separate plates (see § 6). Fold-outs and colour plates are expensive and may have to be paid for; ask the Editor for advice.

Put a marginal note on the typescript where a figure is to be placed, e.g. 'FIG. 1 near here'. (The Editor or printers may alter this placing.)

List captions on a separate sheet and in a separate disk file (see §19).

Originals, if sent, or hard copy should not be larger than 24 by 18 inches (600 by 450 mm). Leave margins of at least 0.75 inches (20 mm) on all sides. Do not include a caption or title, and keep lettering and legends on the illustrations to a minimum: these can be included in a caption.

If a figure (e.g. a group of pottery profiles) consists of more than one drawing and has to be submitted as camera-ready copy, mount the originals on a larger sheet, fixing them securely and adding Letraset numbers or letters of an appropriate size beside each item.

Ensure scale bars are clear; alternatively, indicate the scale in the caption, in the form of a ratio. Pottery drawings should be at simple ratios such as 1 : 2 (e.g. sherds with figured decoration), 1 : 3 (plain or incised sherds, typical vase profiles), or 1 : 4 (amphoras). On maps and plans, put north at the top.

The maximum *printed* area of a page of the *Annual* is 6 by 8 inches (150 by 200 mm), including any caption, so full-page drawings should be approximately in the proportion 3 : 4, half-page drawings 3 : 2, allowing half an inch (13 mm) for the caption within the printed area. Decide whether a figure is to be printed 'portrait' (vertical on the page—the normal orientation) or 'landscape' (rotated through 90 degrees).

Allow for reduction when printing: drawings should not be designed for printing at full size, but should ideally be larger than their final size. Aim for the smallest size, when printed, that conveys the necessary information clearly. Full-page illustrations are justified only when a large amount of information is contained in a drawing.

Mark the suggested reduction factor in pencil in the lower right-hand corner of hard copy. Use a fraction ($\frac{1}{2}$, $\frac{3}{4}$) or percentage (40%) to indicate dimension of printed figure divided by dimension of original. This represents linear, not areal, reduction: $\frac{1}{2}$ or 50% means 'half the

height and half the width of the original'. Alternatively, use 'full page', 'page width', 'half page', 'quarter page', or similar instructions.

Use line thicknesses and lettering appropriate for the degree of reduction. There will invariably be loss of detail when printing from lines drawn lightly or with a very fine pen. Take particular care not to make dots or stippling too light.

18. PHOTOGRAPHS (IN TEXT OR IN PLATES SECTION)

Photographs are printed as half-tones, whether in the text or, when agreed as requiring highest standards, as plates; the resolution is the same.

Electronically generated scans of photographs are now favoured. Please scan half-tones (Black and white and colour photographs) at 400 dpi (dots per square inch), and submit electronically on CD or DVD, with hard copies annotated with figure or plate number, author's name and article, and arrows to indicate top. Please use TIFFs or similar, not JPEGs. Grey tone scale not less than 5% or more than 93%.

If plates are desired, ensure that a whole number of complete plates is used—preferably an even number, to simplify production of offprints.

Ensure photographs have adequate contrast. Avoid grey backgrounds and dark shadows.

Photographs, like drawings (§17), should be larger than the size at which they are to appear: typically 125 per cent (linear) of final size. Aim at the smallest printed size that will convey the information clearly. Most end-plates should consist of two or four photographs.

If submitting hard copy, put the photographs for each figure or plate in a numbered envelope containing a 'mock-up' of the envisaged whole, indicating the position of each photograph (unless a figure or plate is composed of a single photograph).

Write a suggested degree of reduction on the back of each photograph, and on the plate mock-up. Express reduction factors as for drawings (§17 above).

Unmounted prints need not be cropped: mark empty or uninformative border areas by pencil lines on the *back* of the photograph, so that they are not printed.

Write your name and a provisional figure or plate number on the back of each photograph, with an arrow pointing to the top of the picture.

19. CAPTIONS

Print lists of the captions to the figures, tables, and plates on separate sheets, and in a separate disk file.

Keep captions short.

III. PROOFS, COPYRIGHT, AND OFFPRINTS

20. PROOFS

Ensure that the Editor has a reliable address to which your proofs can be sent. They must be checked and returned within a few days, or the article will be printed without corrections; the Editor cannot check articles in detail.

Proofs of co-authored articles will be sent to the first named author who is resident in the UK, whenever possible.

Keep a copy of the text which you submitted (see §3).

See §3 for what changes may be made at proof stage. If you request excessive changes you may be required to pay for them.

21. OFFPRINTS

Fifteen copies of each article are supplied free. You may order further offprints when you return proofs; payment must be enclosed with proofs. A limit on numbers may be imposed.

Unless otherwise requested, offprints of co-authored articles will be sent to the first named author who is resident in the UK.

22. COPYRIGHT

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23. STANDARD ABBREVIATIONS

The *Annual* uses an emended version of Harvard notation for bibliographical references.

These pages describe those emendations, giving both for readers and for prospective authors advice of those works commonly cited in the *Annual* for which a standard abbreviation is used. As explained further below, any other such abbreviations are normally listed in the first footnote to an article. The list comprises:

- (a) accepted abbreviations for periodicals cited in the Bibliography of any article
- (b) abbreviations which may be used in the text when referring merely to published photographs or texts without reference to the relevant author's discussion

The Editors welcome additions and corrections.

(A) PERIODICALS AND SERIAL PUBLICATIONS CITED BY ABBREVIATED TITLE ALONE

AA	<i>Archäologischer Anzeiger</i>
AAA	<i>Athens Annals of Archaeology</i> (Αρχαιολογικά ανάλεκτα εξ Αθηνών)
Abh.	Abhandlungen; followed by name of academy: e.g. <i>Abh. Berlin</i> . The subject suffix is not specified unless it is other than 'phil.-hist. Kl.'
AC	<i>Archeologia Classica</i>
Act A.	<i>Acta Archaeologica</i>
A. Delt. Mel.	<i>Αρχαιολογικόν δελτίον Α. Μελέται</i>
A. Delt. Chr.	<i>Αρχαιολογικόν δελτίον Β. Χρονικά</i>
AHR	<i>American Historical Review</i>
AJA	<i>American Journal of Archaeology</i>
AJAH	<i>American Journal of Ancient History</i>
AJ Num.	<i>American Journal of Numismatics</i>
AJP	<i>American Journal of Philology</i>
AK	<i>Antike Kunst</i>
Ath. Mitt.	<i>Mitteilungen des Deutschen Archäologischen Instituts, athenische Abteilung</i>
Anat. Stud.	<i>Anatolian Studies</i>
Ann. Ep.	<i>L'Année épigraphique</i>
Ant. Cl.	<i>L'Antiquité classique</i>
Ant. J.	<i>Antiquaries' Journal</i>
Ant. P.	<i>Antike Plastik</i>
AR	<i>Journal of Hellenic Studies, Archaeological Reports</i> (e.g. AR 27 (1987-8), 12-24)
Arch. Eph.	<i>Αρχαιολογική εφημερίς</i>
ASA	<i>Annuario della Scuola Archeologica di Atene.</i>
ASAE	<i>Annales du Service des Antiquités de l'Égypte</i>
Atti Pont. Acc.	<i>Atti della Pontificia Accademia Romana di Archeologia</i>
AZ	<i>Archäologische Zeitung</i>
BABesch	<i>Bulletin van de Vereeniging tot Bevordering der Kennis van de Antieke Beschaving.</i>
BAR	<i>British Archaeological Reports</i>
BAR IS	<i>British Archaeological Reports International Series</i>
BASOR	<i>Bulletin of the American Schools of Oriental Research</i>
BCH	<i>Bulletin de correspondance hellénique</i>
BdA.	<i>Bollettino dell'arte</i>
Belleten	<i>Belleten Türk tarih kurumu</i>
Berl. Mus.	<i>Berliner Museen, Berichte aus den preussischen Kunstsammlungen</i>
BIAB	<i>Bulletin de l'Institut Archéologique Bulgare</i>
BICS	<i>Bulletin of the Institute of Classical Studies, London</i>
B. Jb.	<i>Bonner Jahrbücher</i>
BMFA	<i>Bulletin of the Museum of Fine Arts, Boston</i>
BMGS	<i>Byzantine and Modern Greek Studies</i>
BMMA	<i>Bulletin of the Metropolitan Museum of Art, New York</i>
BMQ	<i>British Museum Quarterly</i>
BSA	<i>Annual of the British School at Athens</i>
Bull. Ep.	<i>Bulletin épigraphique</i>

<i>Byz. Arch.</i>	<i>Byzantinisches Archiv</i>
<i>BZ</i>	<i>Byzantinische Zeitschrift</i>
<i>CAJ</i>	<i>Cambridge Archaeological Journal</i>
<i>CP</i>	<i>Classical Philology</i>
<i>CQ</i>	<i>Classical Quarterly</i>
<i>CR</i>	<i>Classical Review</i>
<i>CRAI</i>	<i>Comptes rendus de l'Académie des Inscriptions et des Belles-lettres</i>
<i>CSCA</i>	<i>California Studies in Classical Antiquity</i>
<i>DHA</i>	<i>Dialogues d'histoire ancienne</i>
<i>Dialoghi</i>	<i>Dialoghi di archeologia</i>
<i>Epel.</i>	<i>Επετηρίς Εταιρείας Βυζαντινών Σπουδών</i>
<i>Eph. Ep.</i>	<i>Ephemeris epigraphica</i>
<i>Eranos</i>	<i>Eranos Jahrbuch</i>
<i>Ergon</i>	<i>Το έργον της Αρχαιολογικής Εταιρείας</i>
<i>Et. Byz.</i>	<i>Etudes byzantines</i>
<i>Et. Cl.</i>	<i>Les Etudes classiques</i>
<i>G&R</i>	<i>Greece and Rome</i>
<i>GRBS</i>	<i>Greek, Roman, and Byzantine Studies</i>
<i>HSCP</i>	<i>Harvard Studies in Classical Philology</i>
<i>IEJ</i>	<i>Israel Exploration Journal</i>
<i>Ist. Mitt.</i>	<i>Mitteilungen des Deutschen Archäologischen Instituts, Istanbul Abteilung.</i>
<i>JdI</i>	<i>Jahrbuch des Deutschen Archäologischen Instituts</i>
<i>JEA</i>	<i>Journal of Egyptian Archaeology</i>
<i>JFA</i>	<i>Journal of Field Archaeology</i>
<i>JGS</i>	<i>Journal of Glass Studies</i>
<i>JHS</i>	<i>Journal of Hellenic Studies</i>
<i>JNES</i>	<i>Journal of Near Eastern Studies</i>
<i>JNG</i>	<i>Jahrbuch für Numismatik und Geldgeschichte</i>
<i>JPGMJ</i>	<i>J. Paul Getty Museum Journal</i>
<i>JRA</i>	<i>Journal of Roman Archaeology</i>
<i>JRS</i>	<i>Journal of Roman Studies</i>
<i>Kairo Mitt.</i>	<i>Mitteilungen des Deutschen Instituts für Ägyptische Altertumskunde, Kairo.</i>
<i>Kr. Chron.</i>	<i>Κρητικά χρονικά</i>
<i>Lak. spoud.</i>	<i>Λακωνικάί σπουδαί</i>
<i>MAAR</i>	<i>Memoirs of the American Academy in Rome</i>
<i>Madr. Mitt.</i>	<i>Mitteilungen des Deutschen Archäologischen Instituts, Madrider Abteilung</i>
<i>MEFRA</i>	<i>Mélanges d'archéologie et d'histoire de l'École Française de Rome</i>
<i>Mem. Pont. Acc.</i>	<i>Atti della Pontificia Accademia Romana di Archeologia, Memorie</i>
<i>Mon. Linc.</i>	<i>Monumenti antichi pubblicati per cura della (Reale) Accademia Nazionale dei Lincei</i>
<i>Mon. Piot</i>	<i>Monuments et mémoires publiées par l'Académie des Inscriptions et des Belles-lettres, Fondation Piot</i>
<i>Mus. Helv.</i>	<i>Museum Helveticum</i>
<i>N. Sc.</i>	<i>Notizie degli scavi d'antichità</i>
<i>Num. Chron.</i>	<i>Numismatic Chronicle</i>

<i>Num. J.</i>	<i>Numismatic Journal</i>
<i>NZ</i>	<i>Numismatische Zeitschrift</i>
<i>ÖJh</i>	<i>Jahreshefte des Österreichischen Archäologischen Instituts in Wien</i>
<i>OJA</i>	<i>Oxford Journal of Archaeology</i>
<i>Op.Arch.</i>	<i>Opuscula archaeologica</i>
<i>Op.Ath.</i>	<i>Opuscula Atheniensia</i>
<i>Op.Rom.</i>	<i>Opuscula Romana</i>
<i>PAA</i>	<i>Πρακτικά της Ακαδημίας Αθηνών</i>
<i>PAE</i>	<i>Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας</i>
<i>PBA</i>	<i>Proceedings of the British Academy</i>
<i>PBSR</i>	<i>Papers of the British School at Rome</i>
<i>PCPS</i>	<i>Proceedings of the Cambridge Philological Society</i>
<i>PEQ</i>	<i>Palestine Exploration Quarterly</i>
<i>PP</i>	<i>La parola del passato</i>
<i>PPS</i>	<i>Proceedings of the Prehistoric Society</i>
<i>PZ</i>	<i>Prähistorische Zeitschrift</i>
<i>QDAP</i>	<i>Quarterly of the Department of Antiquities in Palestine</i>
<i>RA</i>	<i>Revue archéologique</i>
<i>RDAC</i>	<i>Report of the Department of Antiquities, Cyprus</i>
<i>REA</i>	<i>Revue des études anciennes</i>
<i>REByz.</i>	<i>Revue des études byzantines</i>
<i>REG</i>	<i>Revue des études grecques</i>
<i>REL</i>	<i>Revue des études latines</i>
<i>Rend. Linc.</i>	<i>Rendiconti della (Reale) Accademia Nazionale dei Lincei</i>
<i>Rev. Ep.</i>	<i>Revue épigraphique</i>
<i>Rh.M.</i>	<i>Rheinisches Museum für Philologie</i>
<i>RN</i>	<i>Revue numismatique</i>
<i>Röm. Mitt.</i>	<i>Mitteilungen des Deutschen Archäologischen Instituts, römische Abteilung See comments under AM.</i>
<i>SIMA</i>	<i>Studies in Mediterranean Archaeology</i>
<i>SMEA</i>	<i>Studi micenei ed egeo-anatolici</i>
<i>St.Etr.</i>	<i>Studi etruschi</i>
<i>TAPA</i>	<i>Transactions of the American Philological Association</i>
<i>Türk. Ark. Derg.</i>	<i>Türk arkeoloji dergisi</i>
<i>VDI</i>	<i>Vestnik drevnej istorii</i>
<i>W.St.</i>	<i>Wiener Studien</i>
<i>ZPE</i>	<i>Zeitschrift für Papyrologie und Epigraphik</i>

NB. Supplementary volumes and the like (e.g. BSA supp. vol., BCH suppl.) are normally printed in parentheses, in roman type.

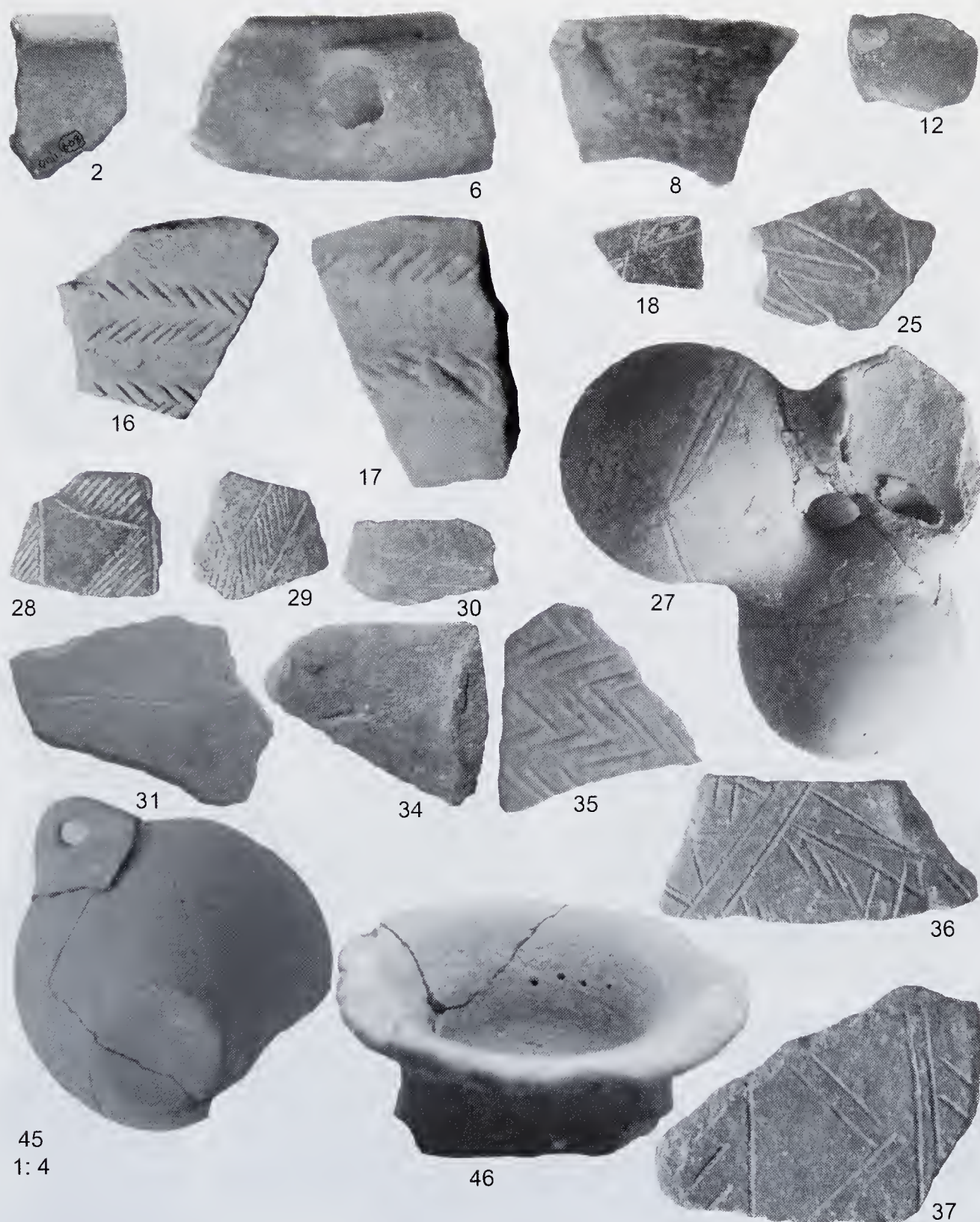
(B) ABBREVIATIONS THAT MAY BE USED WHEN MERELY CITING ILLUSTRATIONS OR EPIGRAPHIC TEXTS, WITHOUT REFERENCE TO ACCOMPANYING DISCUSSION BY THE AUTHOR

ABV	J. D. Beazley, <i>Attic Black-figure Vase-painters</i>
ARV	J. D. Beazley, <i>Attic Red-figure Vase-painters</i> (2nd edn unless specified)
ATL	<i>Athenian Tribute Lists</i> (Meritt and McGregor)
BMC	<i>British Museum Catalogue</i>
CIE	<i>Corpus inscriptionum Etruscarum</i>
CIG	<i>Corpus inscriptionum Graecarum</i>
CIL	<i>Corpus inscriptionum Latinarum</i>
CMS	<i>Corpus der minoischen und mykenischen Siegel</i>
CVA	<i>Corpus vasorum antiquorum</i>
EAA	<i>Enciclopedia dell'arte antica, classica e orientale</i>
FGH	<i>Fragmente der griechischen Historiker</i> (Jacoby)
I.Cret.	<i>Inscriptiones Creticae</i>
IG	<i>Inscriptiones Graecae</i> (e.g. IG i ³ 114. 2(4); IG v. 1. 1199)
IGLSyr.	<i>Inscriptions grecques et latines de la Syrie</i>
IGRR	<i>Inscriptiones Graecae ad res Romanas pertinentes</i>
ILS	<i>Inscriptiones Latinae selectae</i> (Dessau)
LGPN	<i>Lexicon of Greek Personal Names</i> (e.g. LGPN ii. 234)
LIMC	<i>Lexicon Iconographicum Mythologiae Classicae</i>
LSJ	Liddell, Scott, and Jones, <i>Greek-English Lexicon</i> (9th edn)
MAMA	<i>Monumenta Asiae Minoris antiqua</i>
OCD ³	<i>Oxford Classical Dictionary</i> (3rd edn, ed. Hornblower and Spawforth)
OGIS	<i>Orientis Graecae inscriptiones selectae</i>
Pape-Benseler	Pape and Benseler, <i>Wörterbuch der griechischen Eigennamen</i>
PBF	<i>Prähistorische Bronzefunde</i>
PECS	<i>Princeton Encyclopedia of Classical Sites</i>
Para.	J. D. Beazley, <i>Paralipomena</i>
RE	<i>Realencyclopädie der klassischen Altertumswissenschaft</i> (Pauly and Wissowa) (e.g. RE iii. 1455; RE ² xvii. 3456–567)
SEG	<i>Supplementum epigraphicum Graecum</i> (e.g. SEG xi. 1098)
SGDI	<i>Sammlung griechischer Dialekt-Inschriften</i> (Bechtel and Collitz)
SIG ^{1/2/3}	<i>Sylloge Inscriptionum Graecarum</i> (Dittenberger) (1st, 2nd, or 3rd edn)
SNG	<i>Sylloge Nummorum Graecorum</i>
TAM	<i>Tituli Asiae Minoris</i> (e.g. TAM Ephesos, vi. 112)

Further abbreviations may be used where relevant to any particular article, but should be listed at the head of the bibliography, e.g.:

ANRW	<i>Aufstieg und Niedergang der römischen Welt</i>
APF	J. K. Davies, <i>Athenian Propertied Families</i>
FM/FS	Furumark Motif/Furumark Shape
LSAG	L. H. Jeffery, <i>Local Scripts of Archaic Greece</i> , with supplement by A. W. Johnston (1990)
PA	Kirchner, <i>Prosopographia Attica</i>

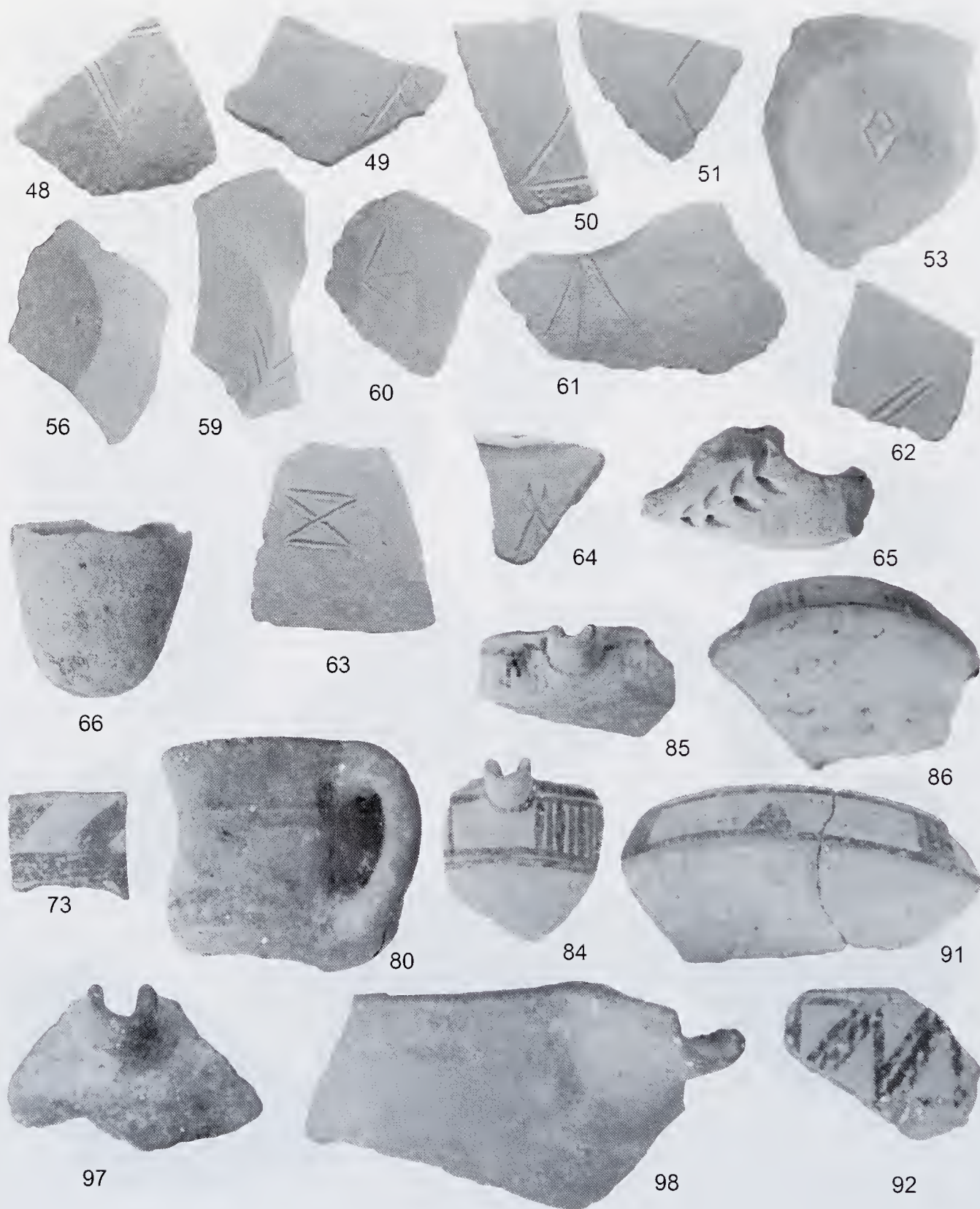
PLATES



BARBER

UNPUBLISHED POTTERY FROM PHYLAKOPI

Early Cycladic I-II pottery (2, 6); Early Cycladic IIIA (8, 12, 16-18); Dark-faced Incised (25, 27-31); Talc Ware (34-7); Brown-Smoothed Ware (45-6).



BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Brown-smoothed ware (48-51, 53, 56, 59-65); Geometric (66, 73, 80, 84-6, 91-2, 97-8).

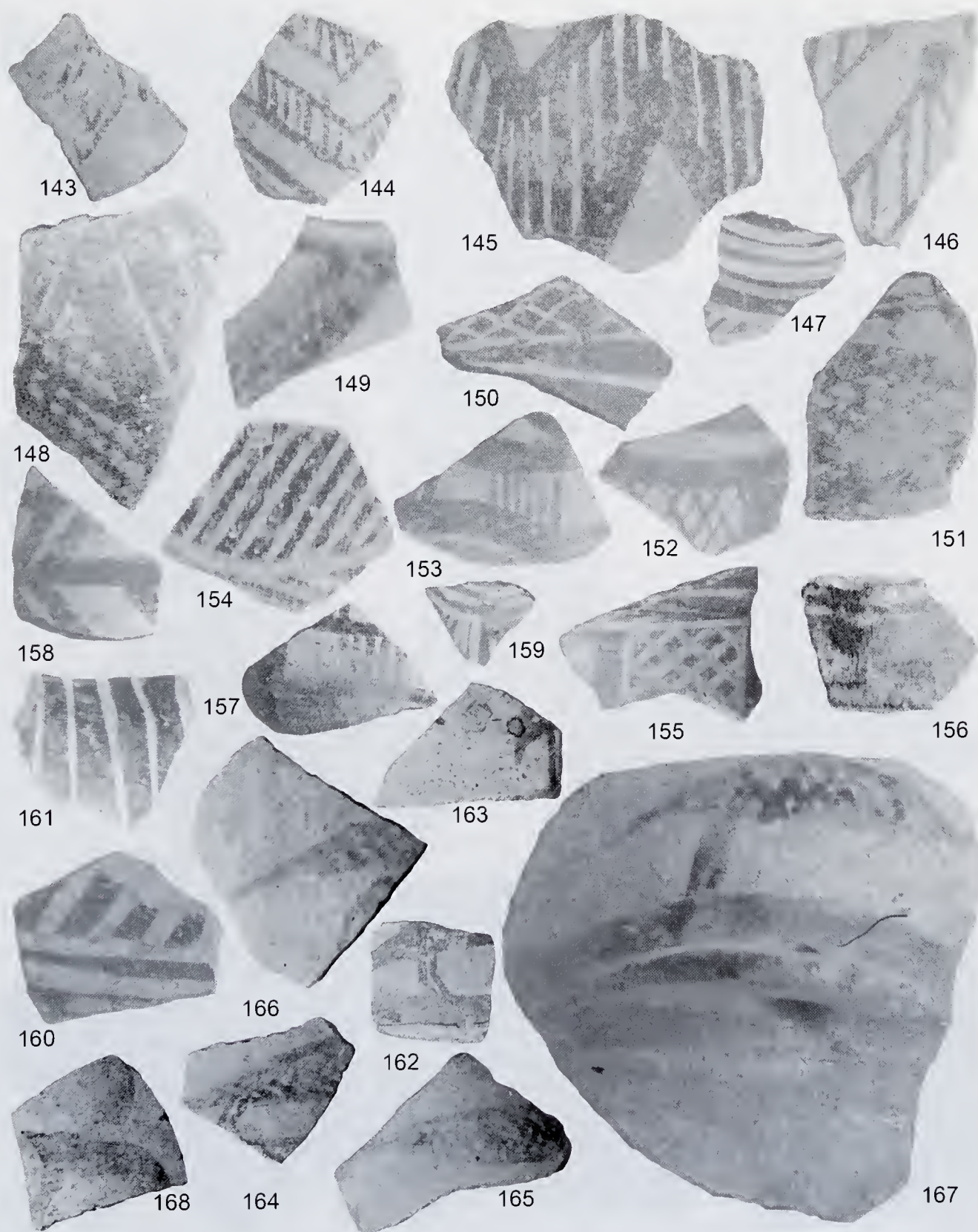


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Geometric pottery.

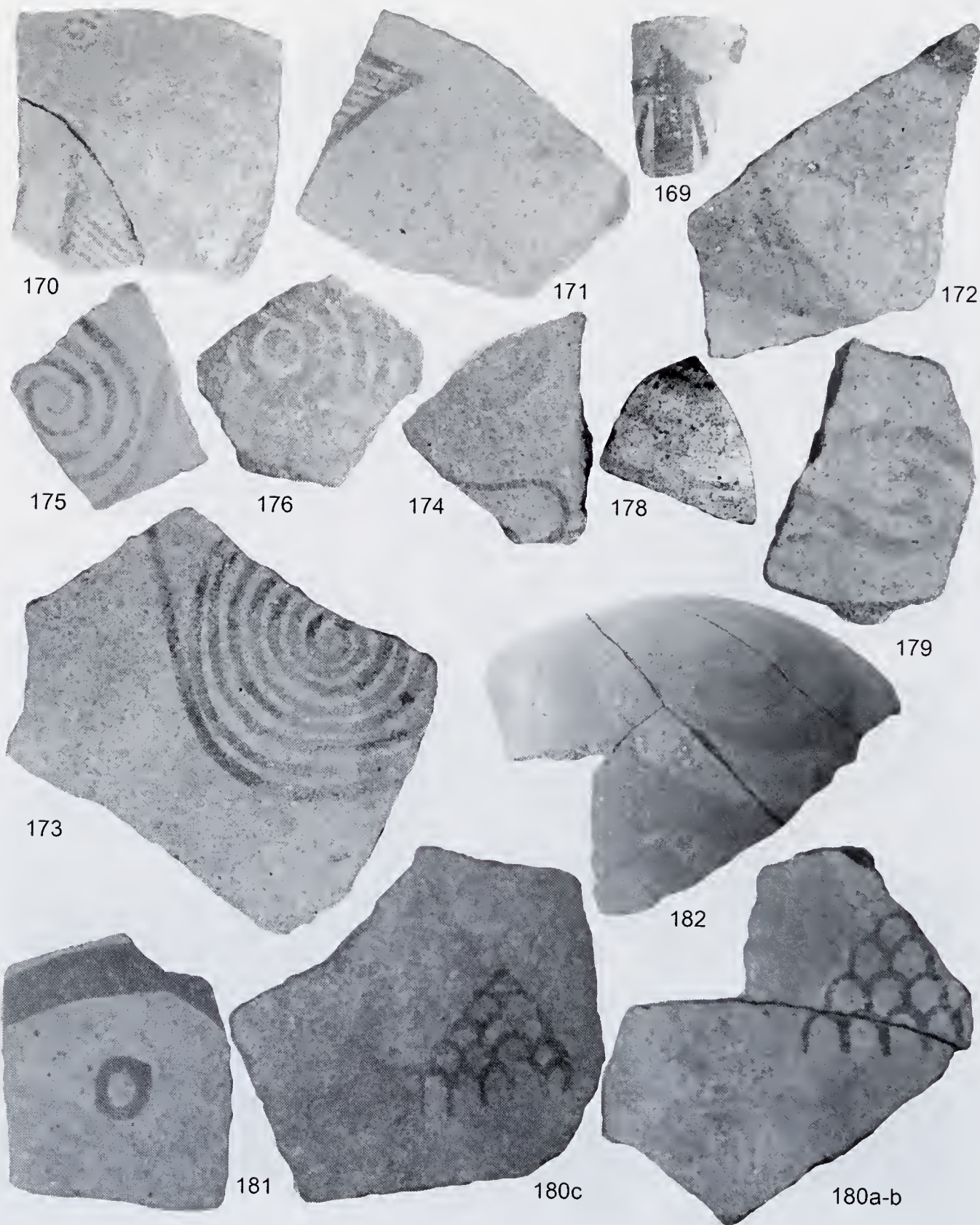


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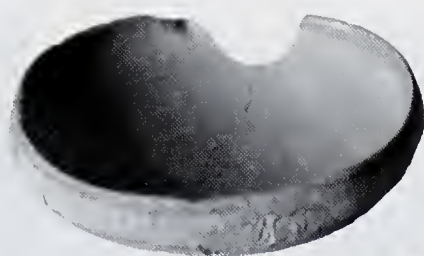
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UNPUBLISHED POTTERY FROM PHYLAKOPI
Geometric pottery.



BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Geometric pottery.



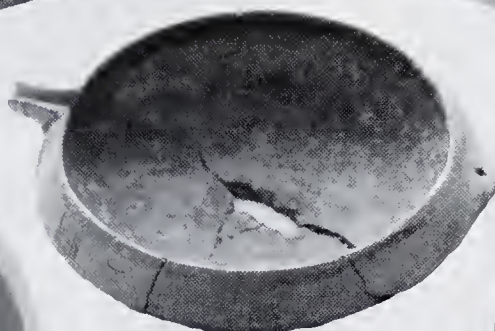
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Geometric pottery.



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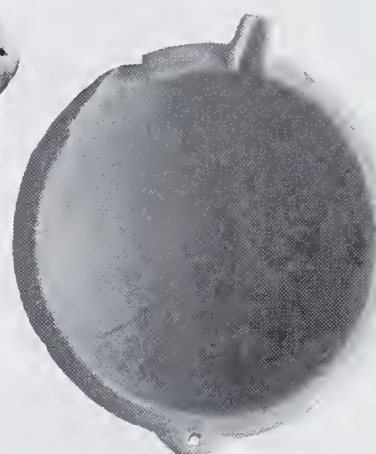
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202 1: 3



201 1: 3



203 1: 3



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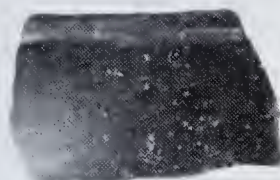
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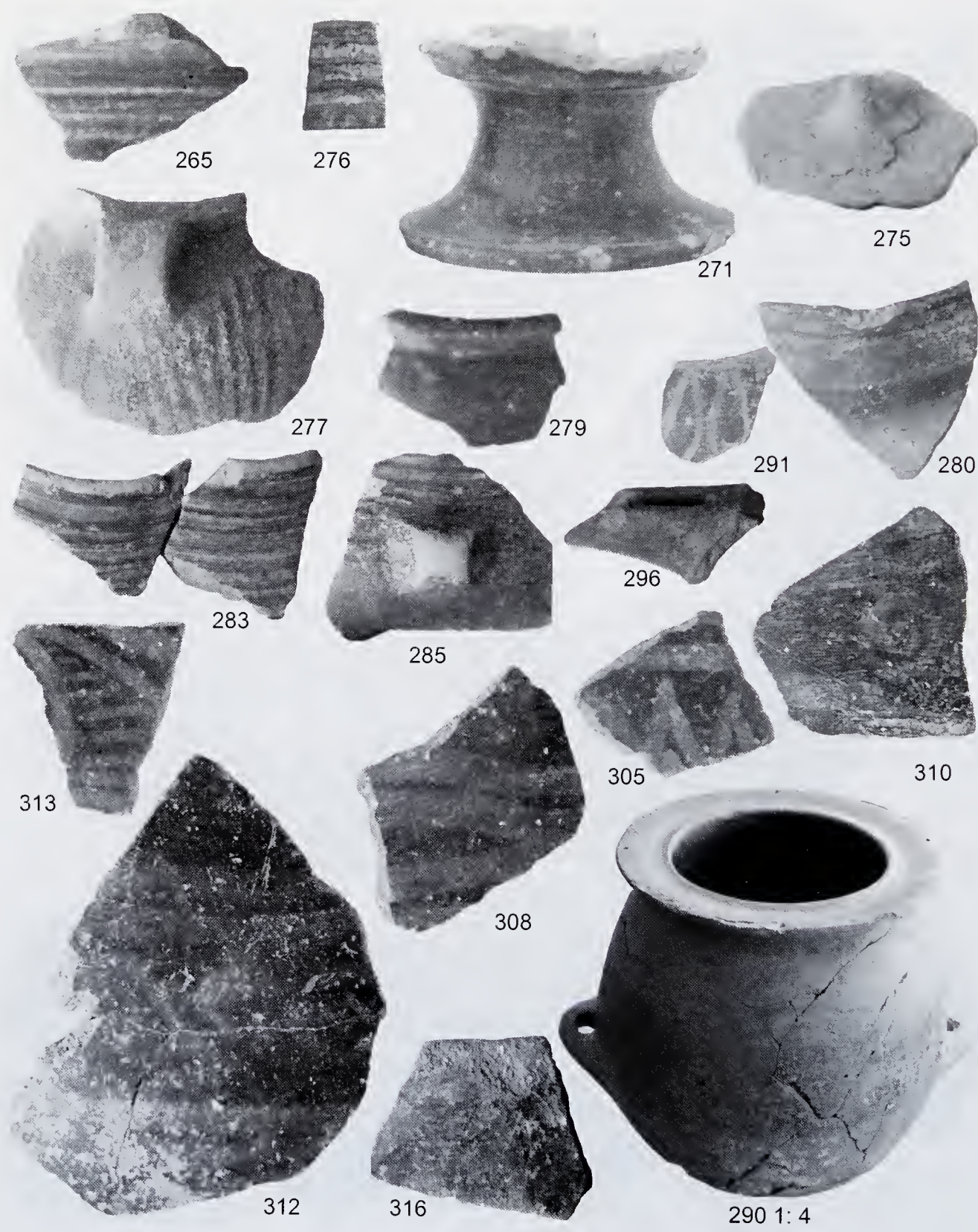


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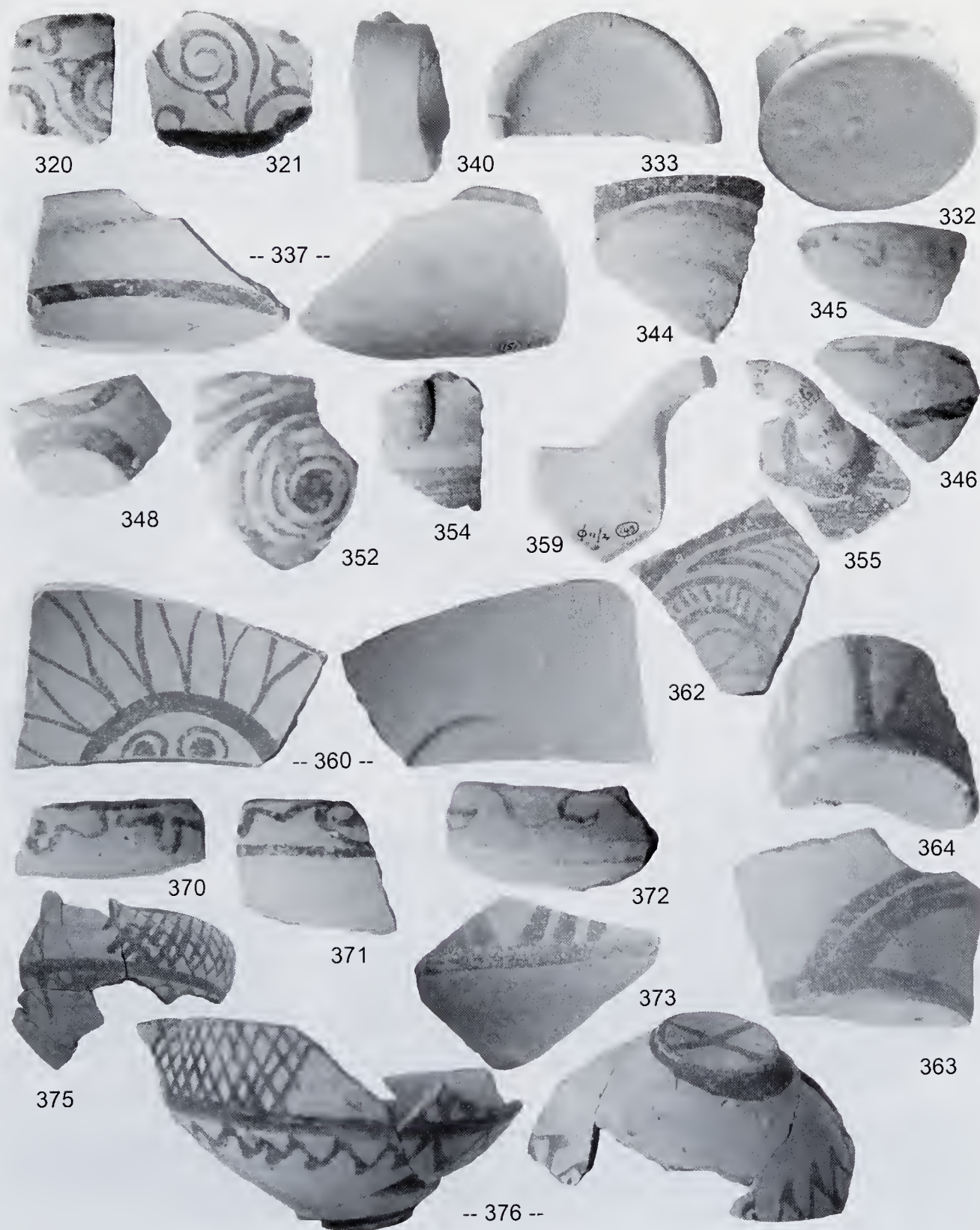


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BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Dark Burnished pottery.



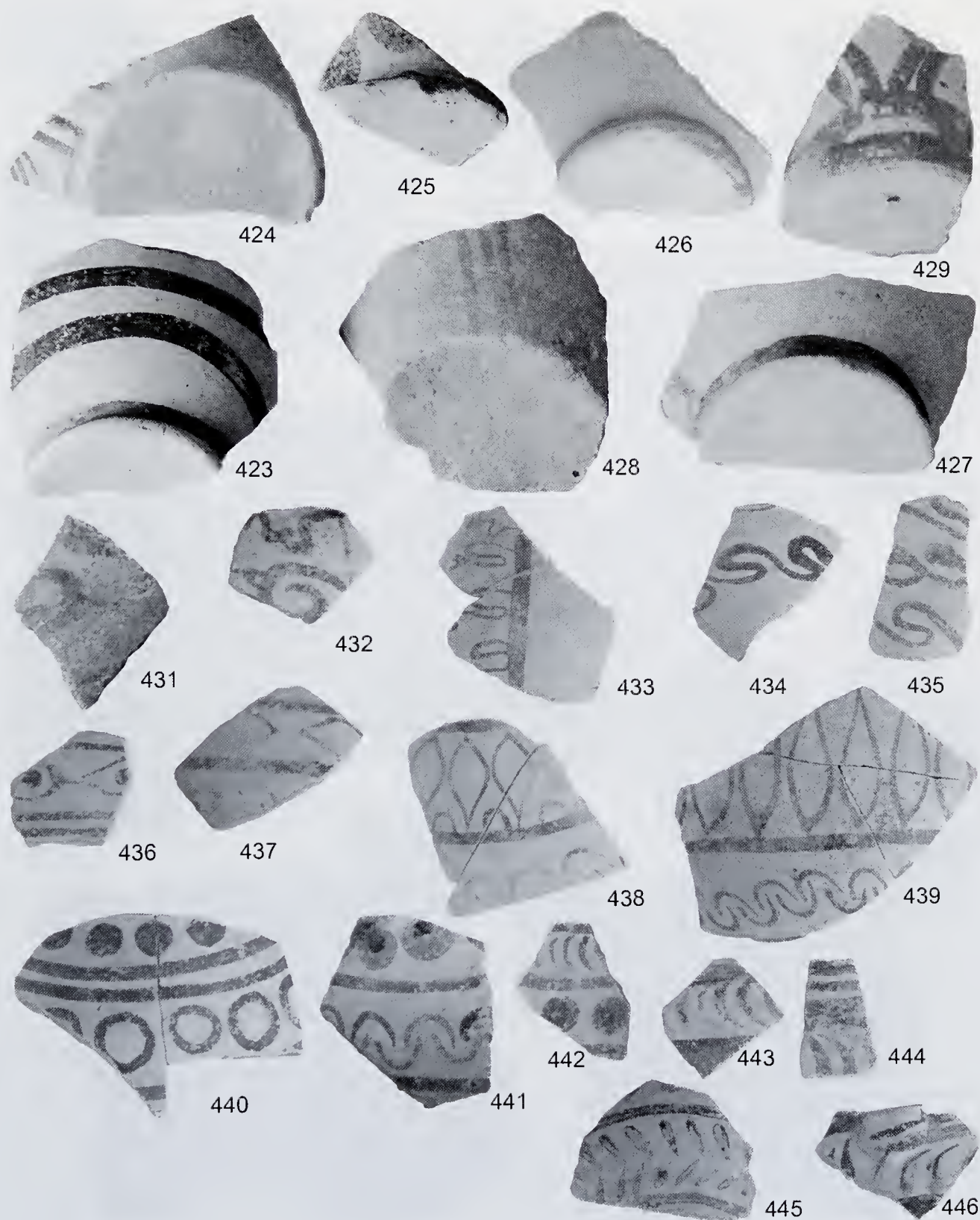
BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Dark Burnished pottery.



BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Cycladic White pottery.



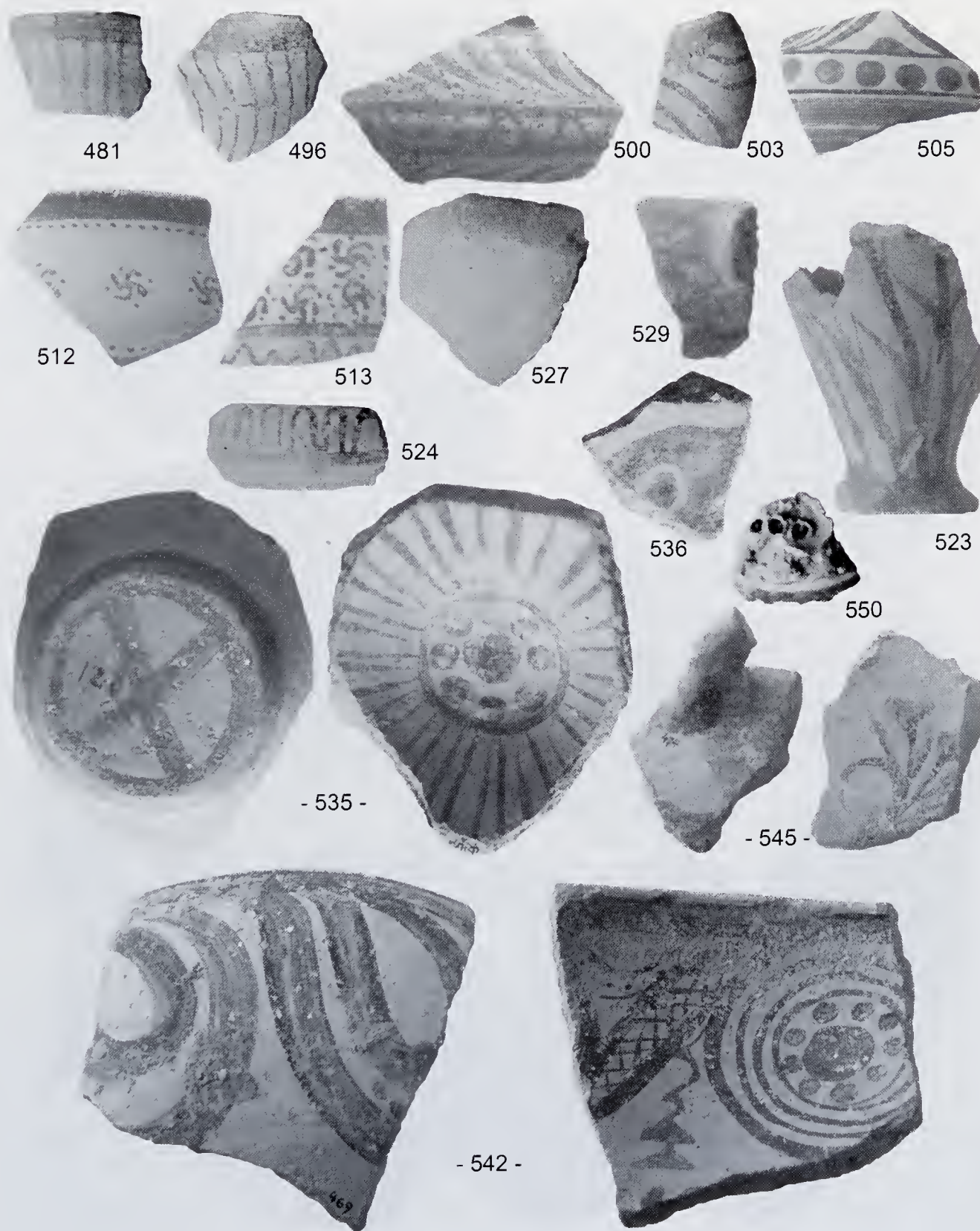
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UNPUBLISHED POTTERY FROM PHYLAKOPI
Cycladic White pottery.



BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Cycladic White pottery.



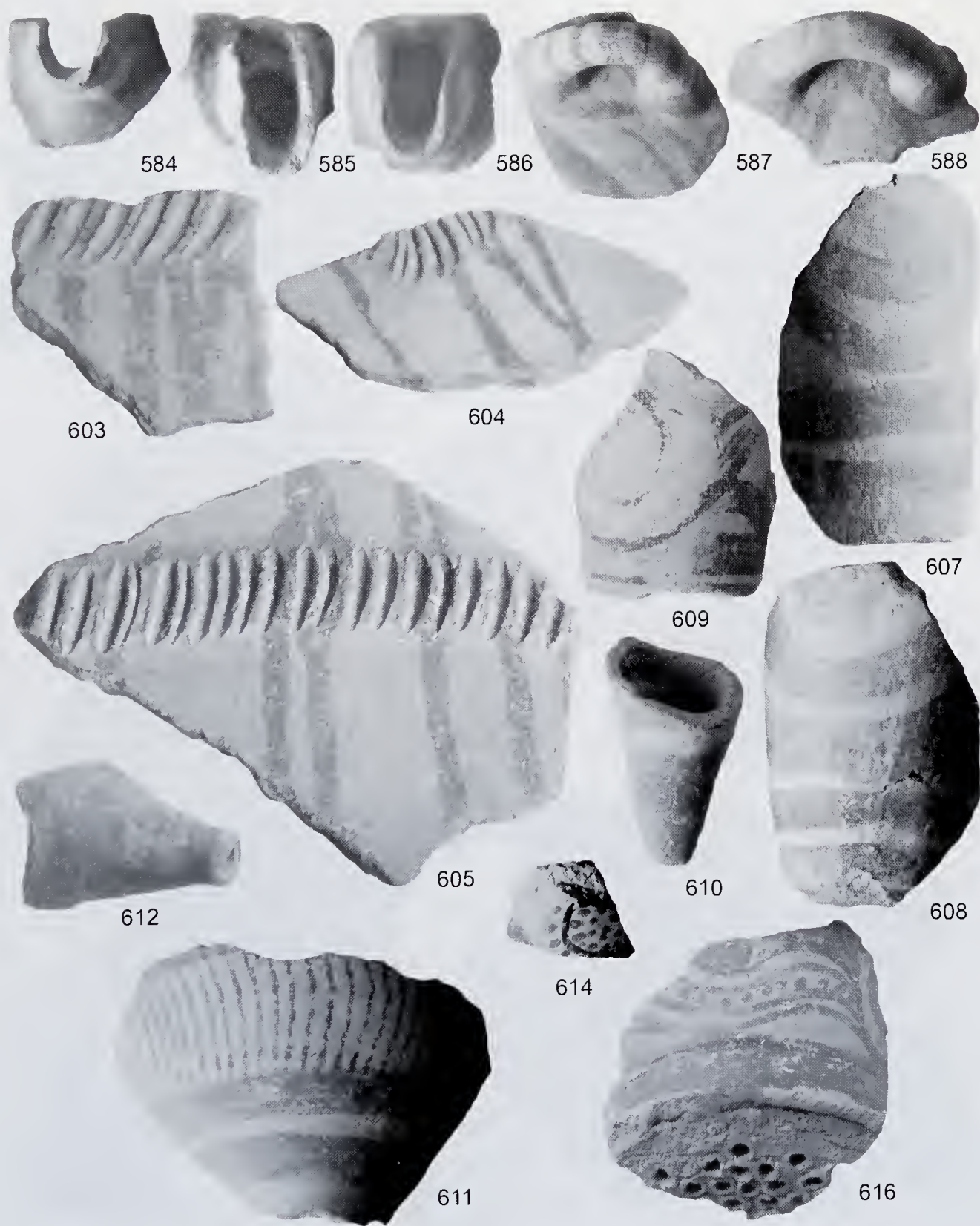
BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Cycladic White pottery.



BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Later Local pottery.



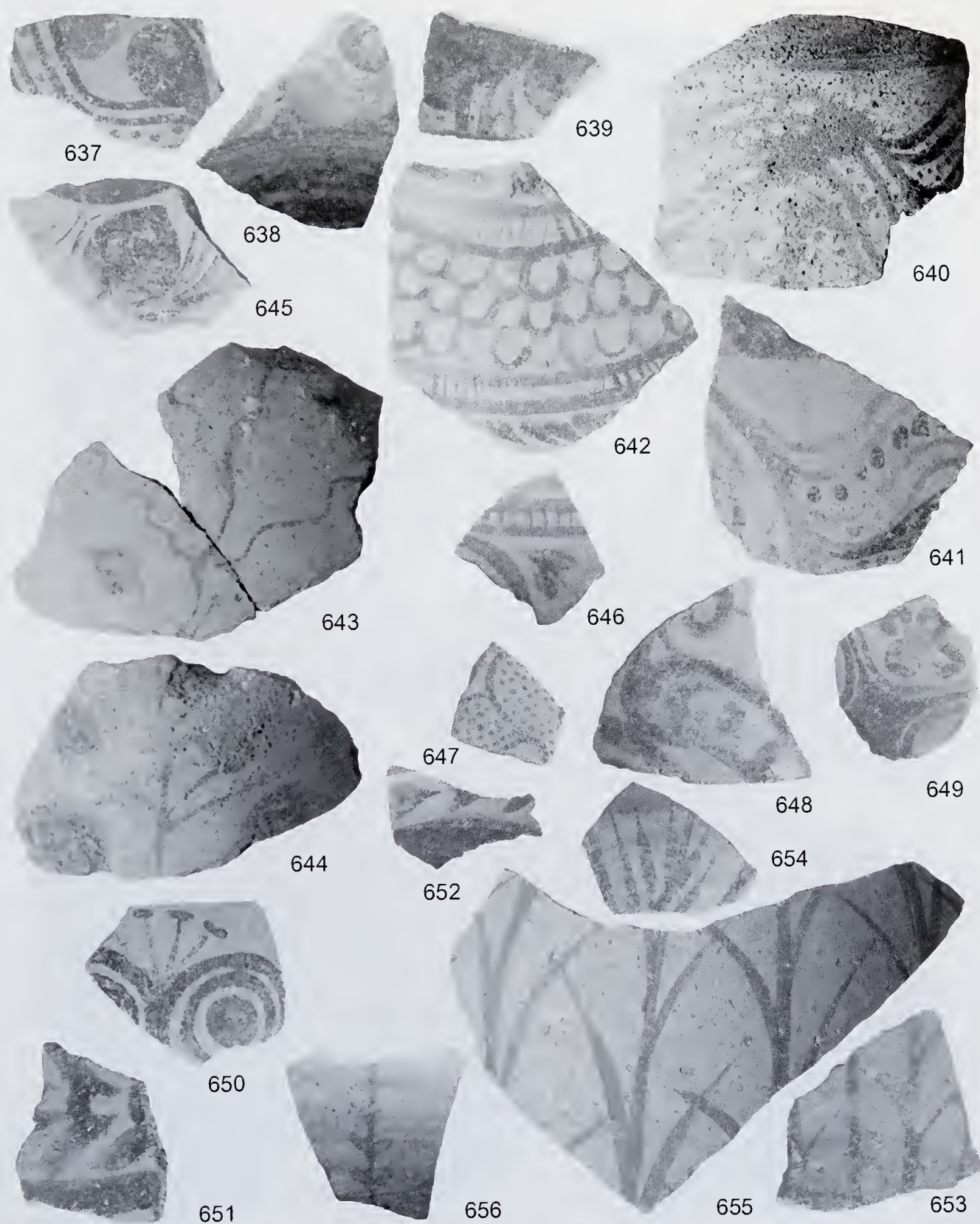
BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Later Local pottery.



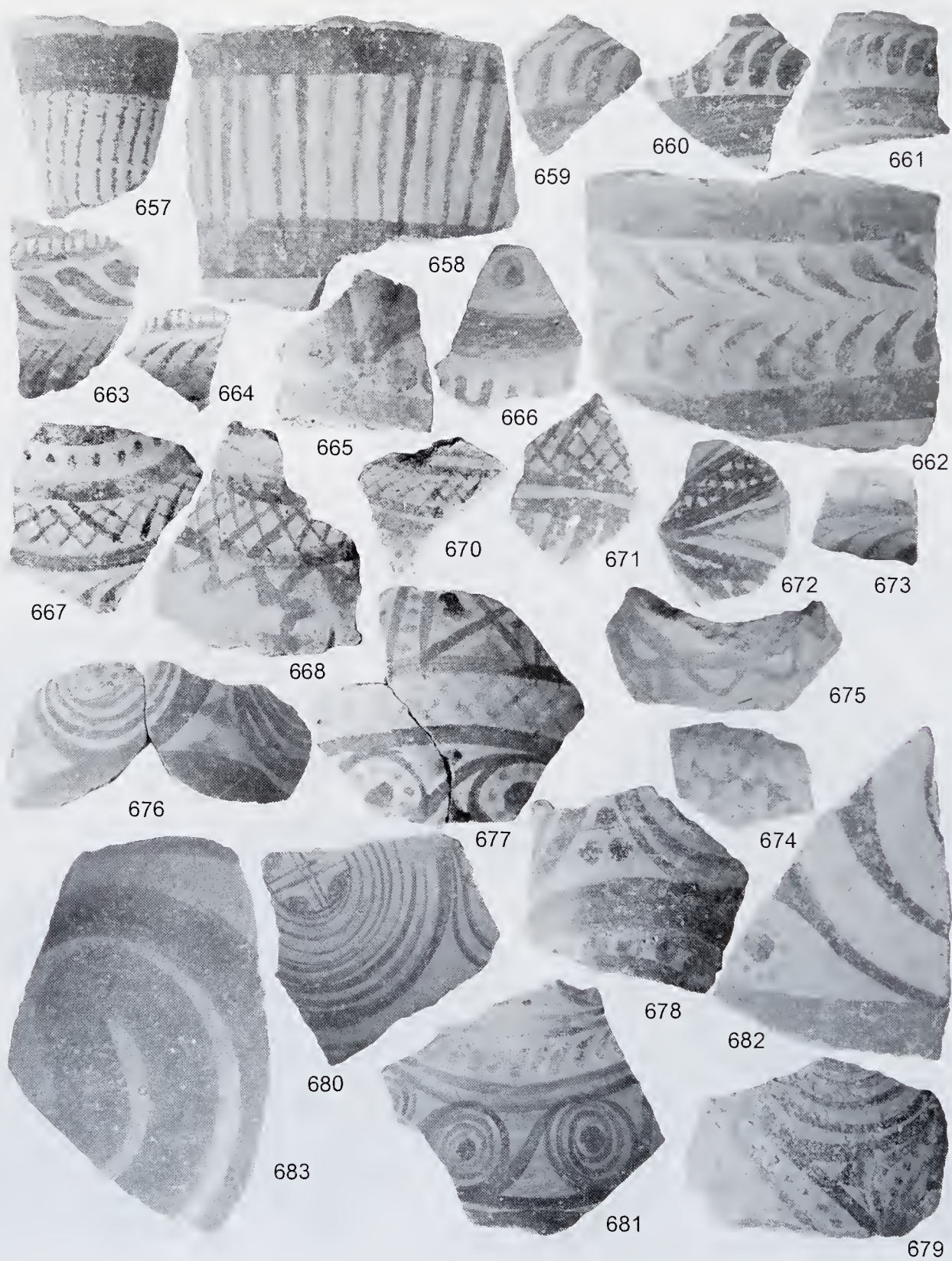
BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Later Local pottery.



BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Later Local pottery.



BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Later Local pottery.



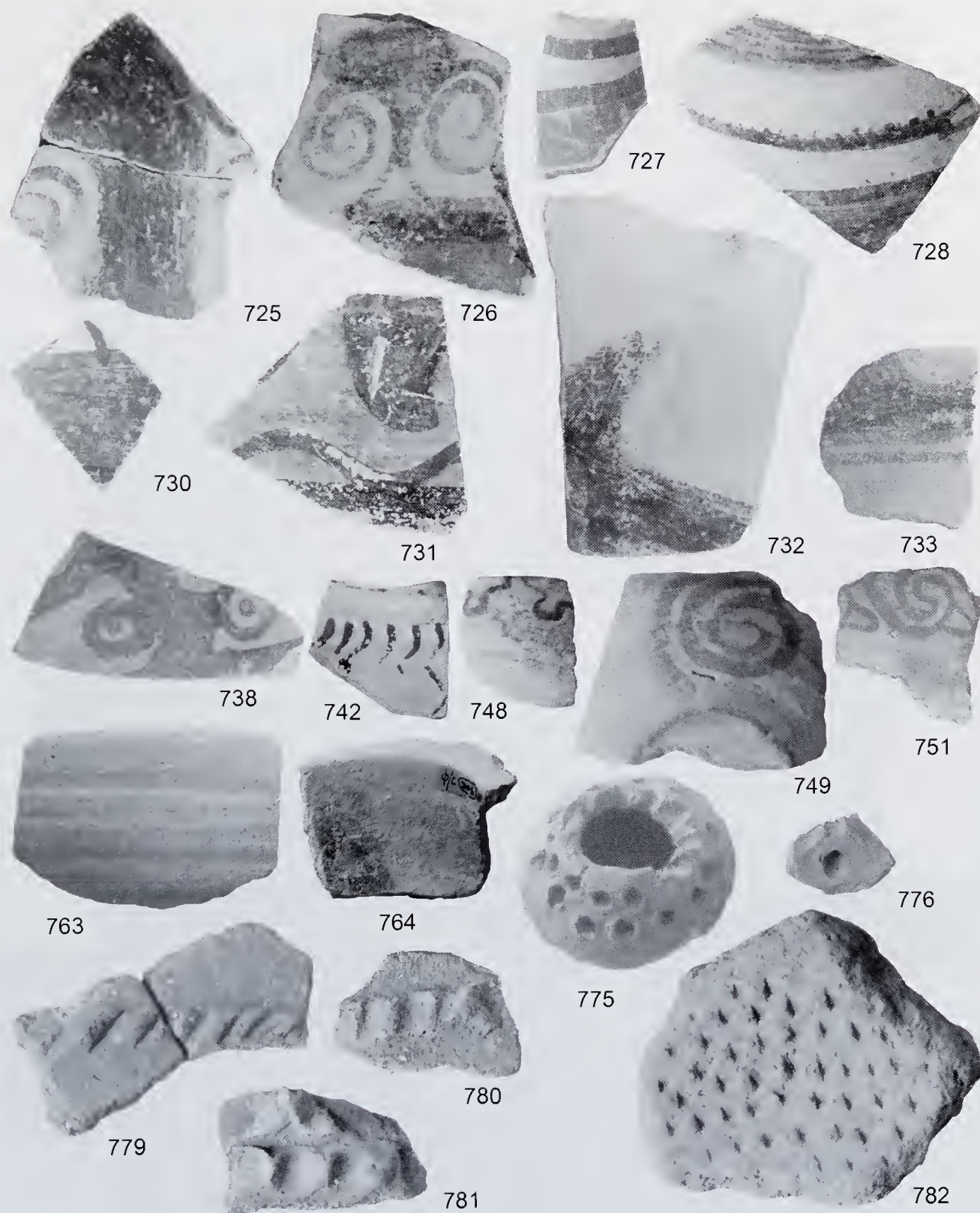
BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Later Local pottery.



BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Later Local pottery, including MC-related.



BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Black and Red pottery.



BARBER

UNPUBLISHED POTTERY FROM PHYLAKOPI

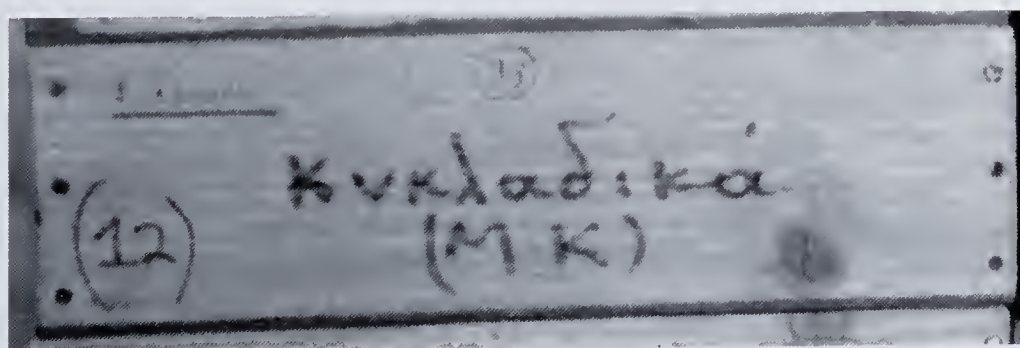
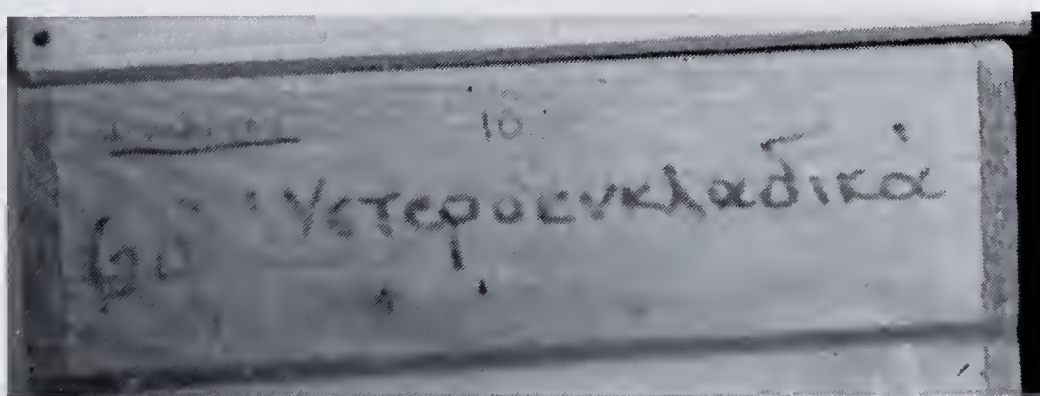
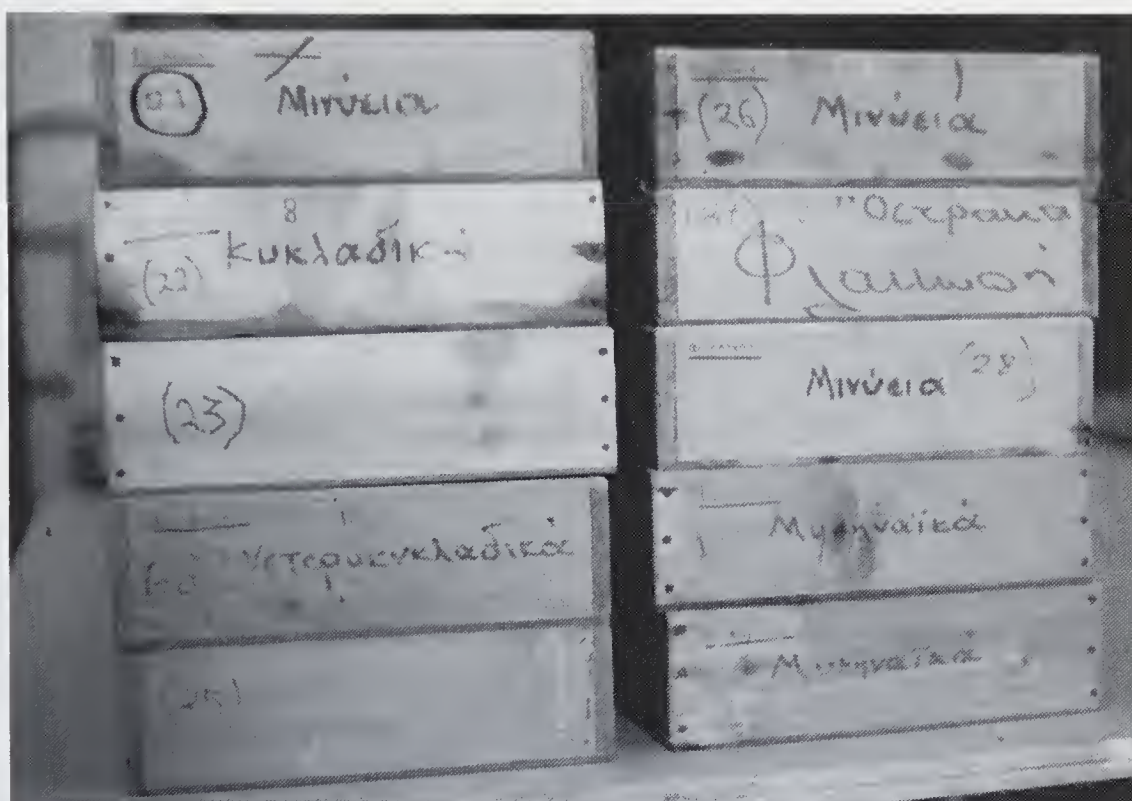
Black and Red pottery (725-28, 730-33); Hard Painted (738, 742); Coarse White Slip (748-9, 751);
Plain (763-4); Coarse (775-6, 779-82).



BARBER

UNPUBLISHED POTTERY FROM PHYLAKOPI

Grey Minyan pottery (uncatalogued goblet bowl and ring stem, 806, 808, 812); other Middle Helladic and Aeginetan imports (815, 817, 820-1); Late Minoan imports (835, 839-40, 846-7).



BARBER
UNPUBLISHED POTTERY FROM PHYLAKOPI
Storage boxes (not to scale).



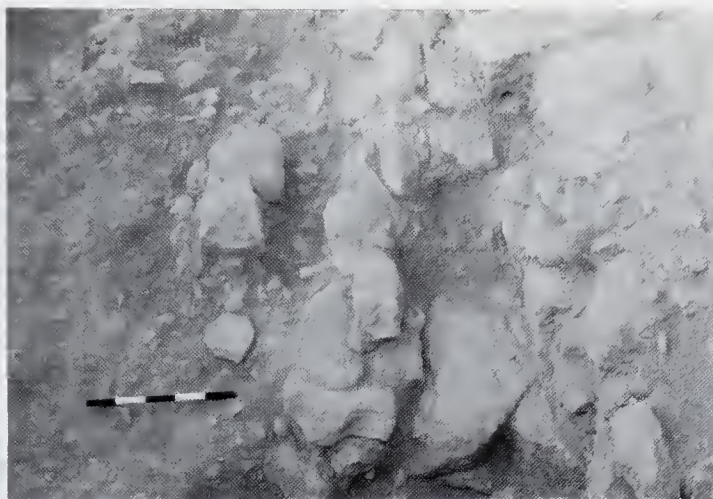
HATZAKI ET AL.
KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
Overview of LPN site; from west.



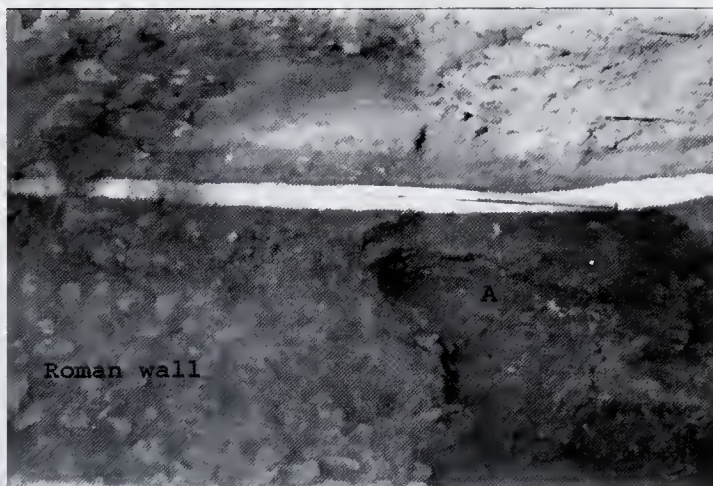
HATZAKI ET AL.
KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
LPN site, trench 3, with Wall 14 and area of pans on left; from southwest.



HATZAKI ET AL.
KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
Pan-lining fragments.



a. The early Greek (?) drains or waterchannels; from north.



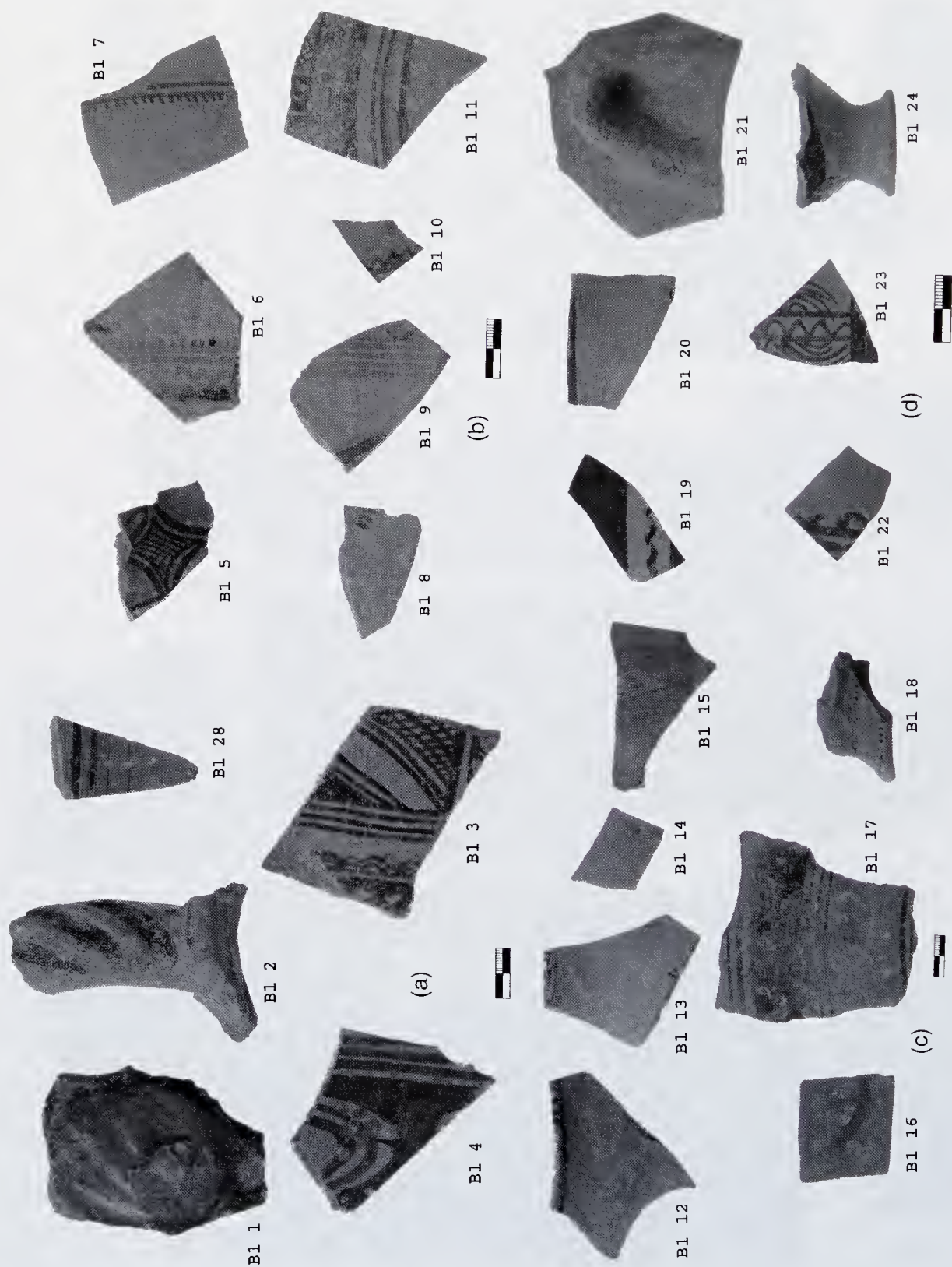
b. Hearth-pit A in metal working area (LO); from east.



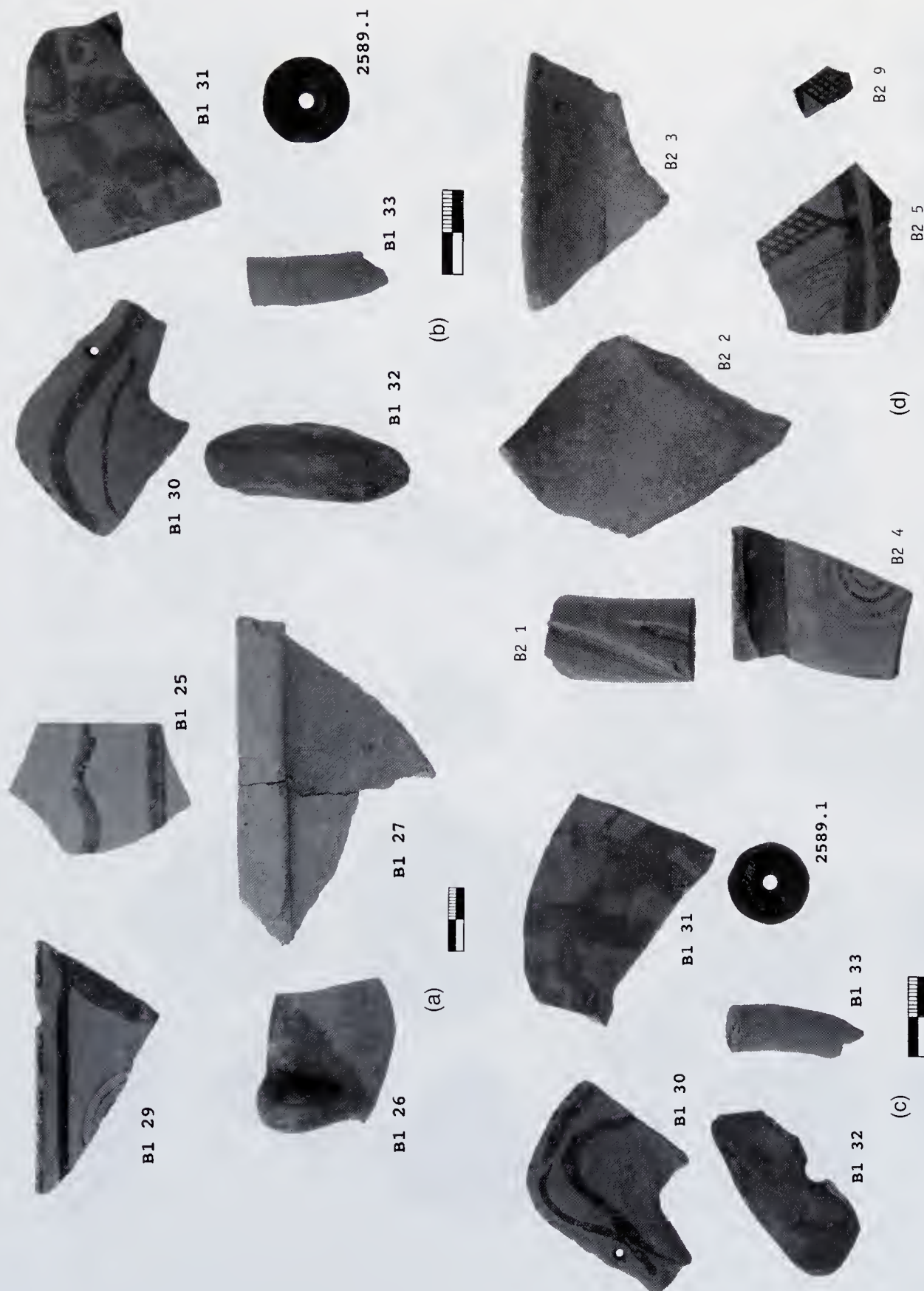
c. Hearth-pit C in metal working area (LO); from north.

HATZAKI ET AL.

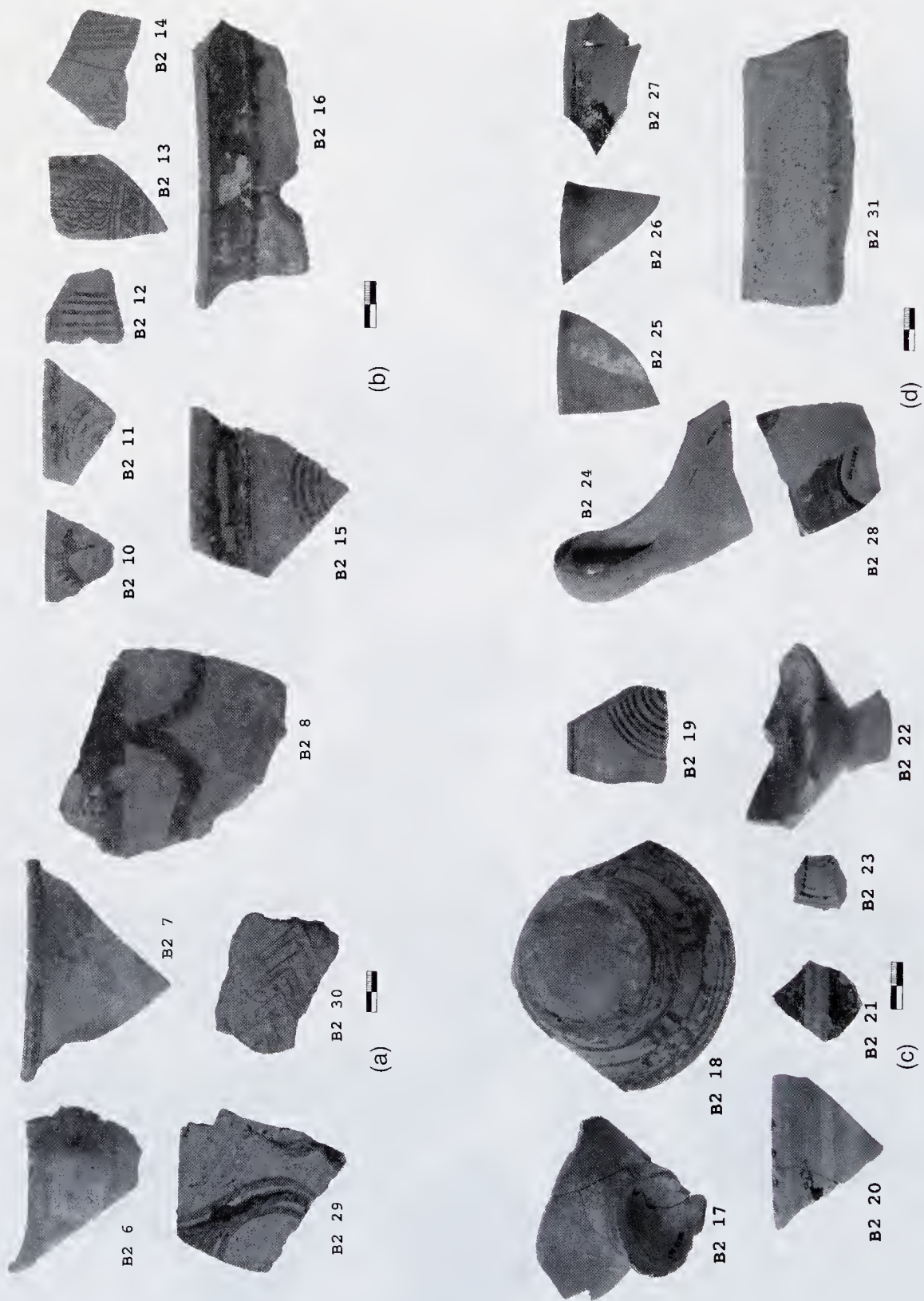
KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS



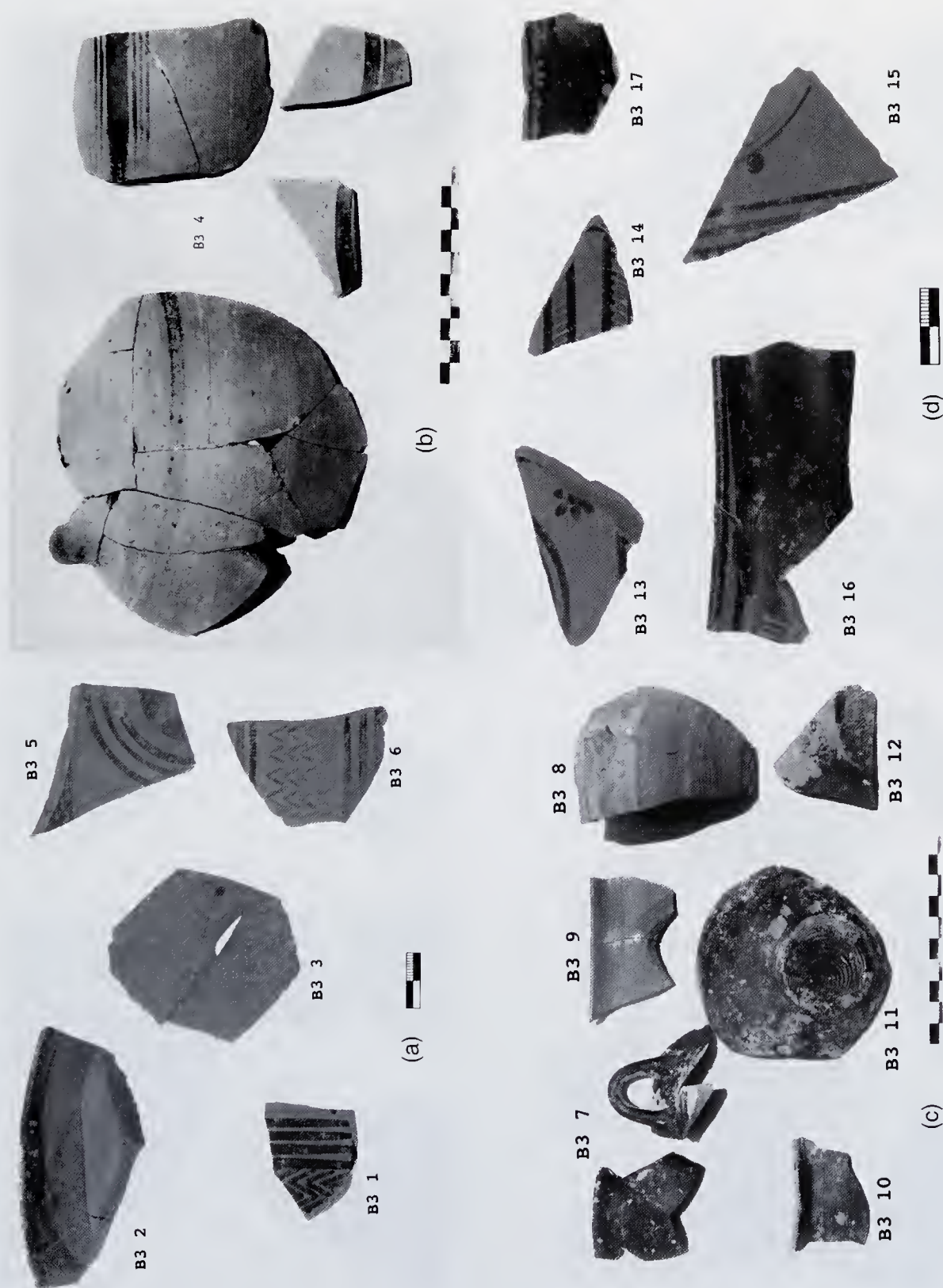
HATZAKI ET AL.
 KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
 Selected pottery from Deposit B1 (SM/EPG).



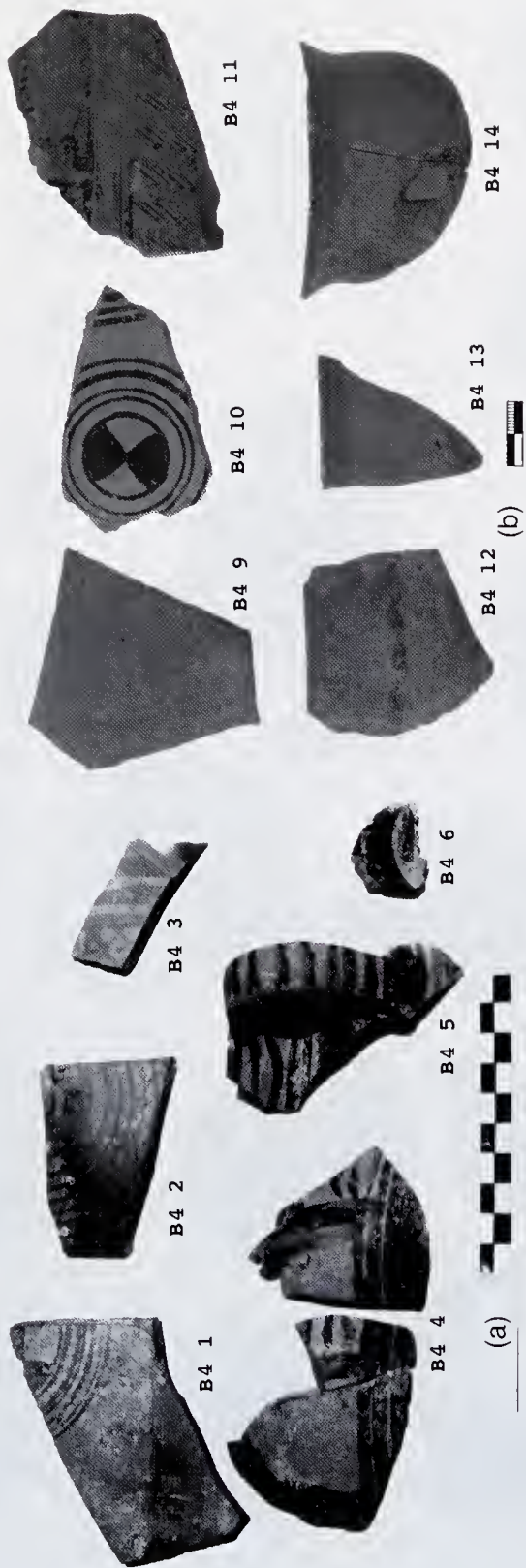
HATZAKI ET AL.
 KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
 Selected pottery from Deposits B1 and B2 (SM/EPG).



HATZAKI ET AL.
KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
Selected pottery from Deposit B2 (PCB/EG).



HATZAKI ET AL.
 KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
 Selected pottery from Deposit B3 (MG).

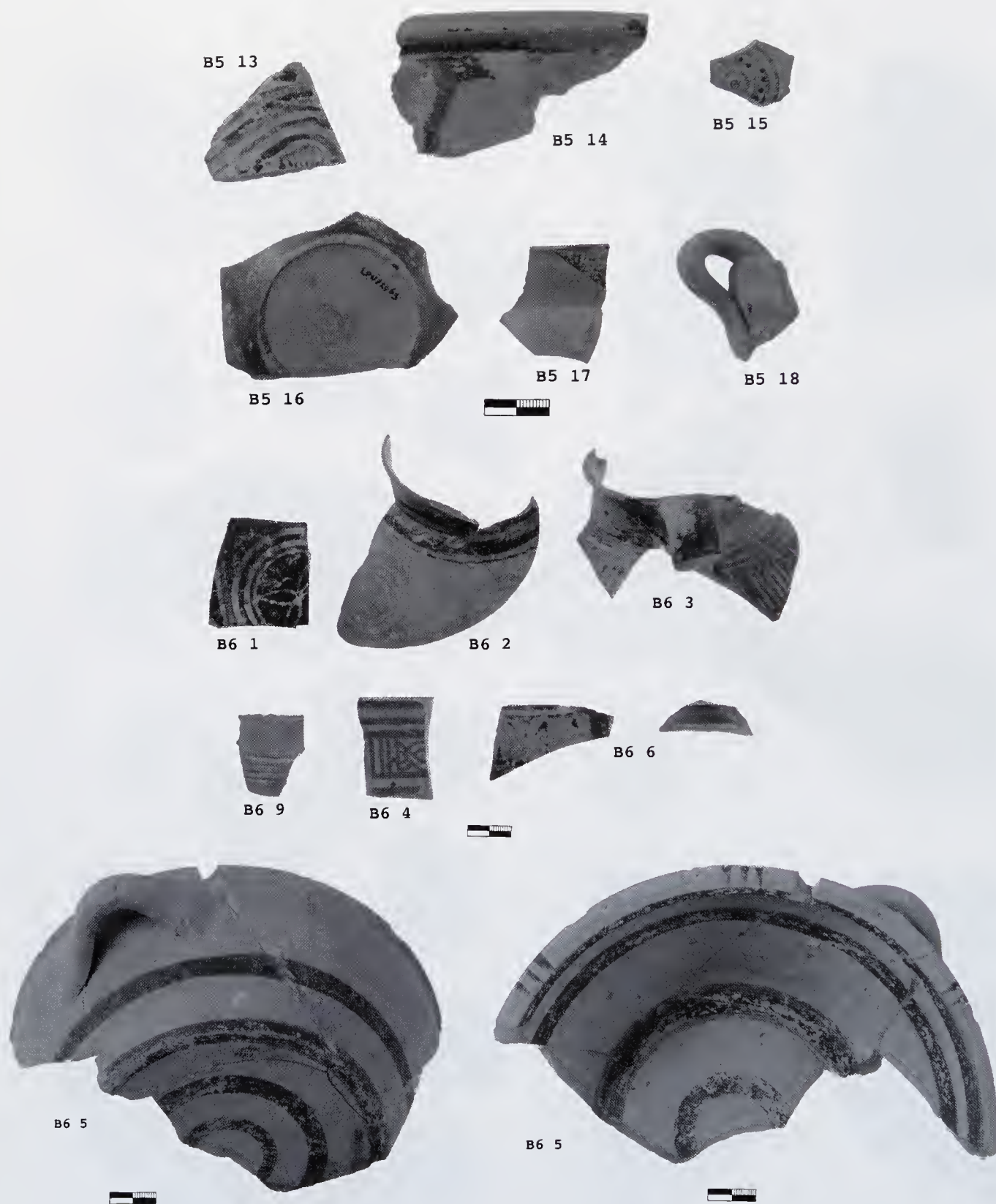


(d)

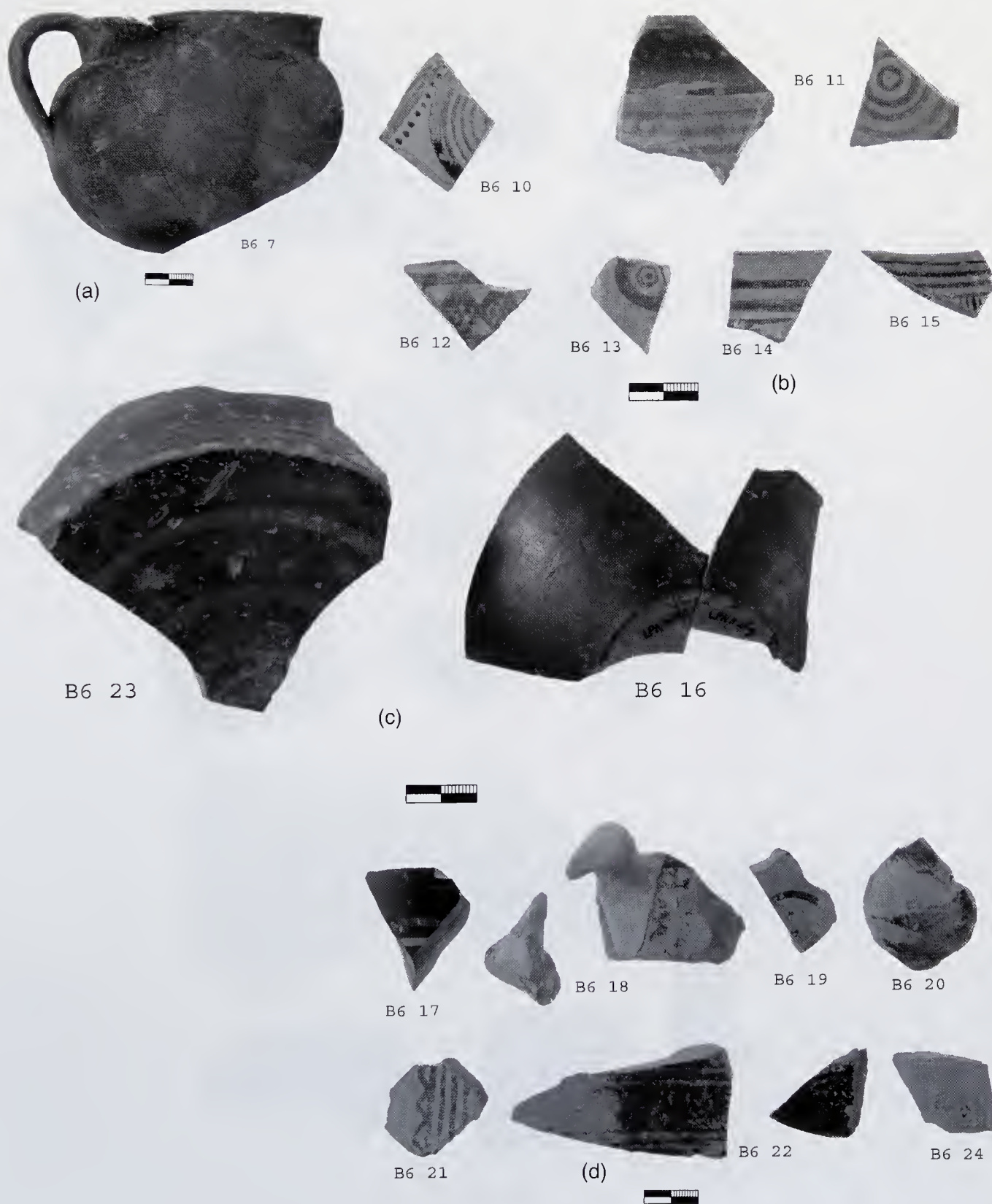
HATZAKI ET AL.
KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
Selected pottery from Deposit B4 (MG).



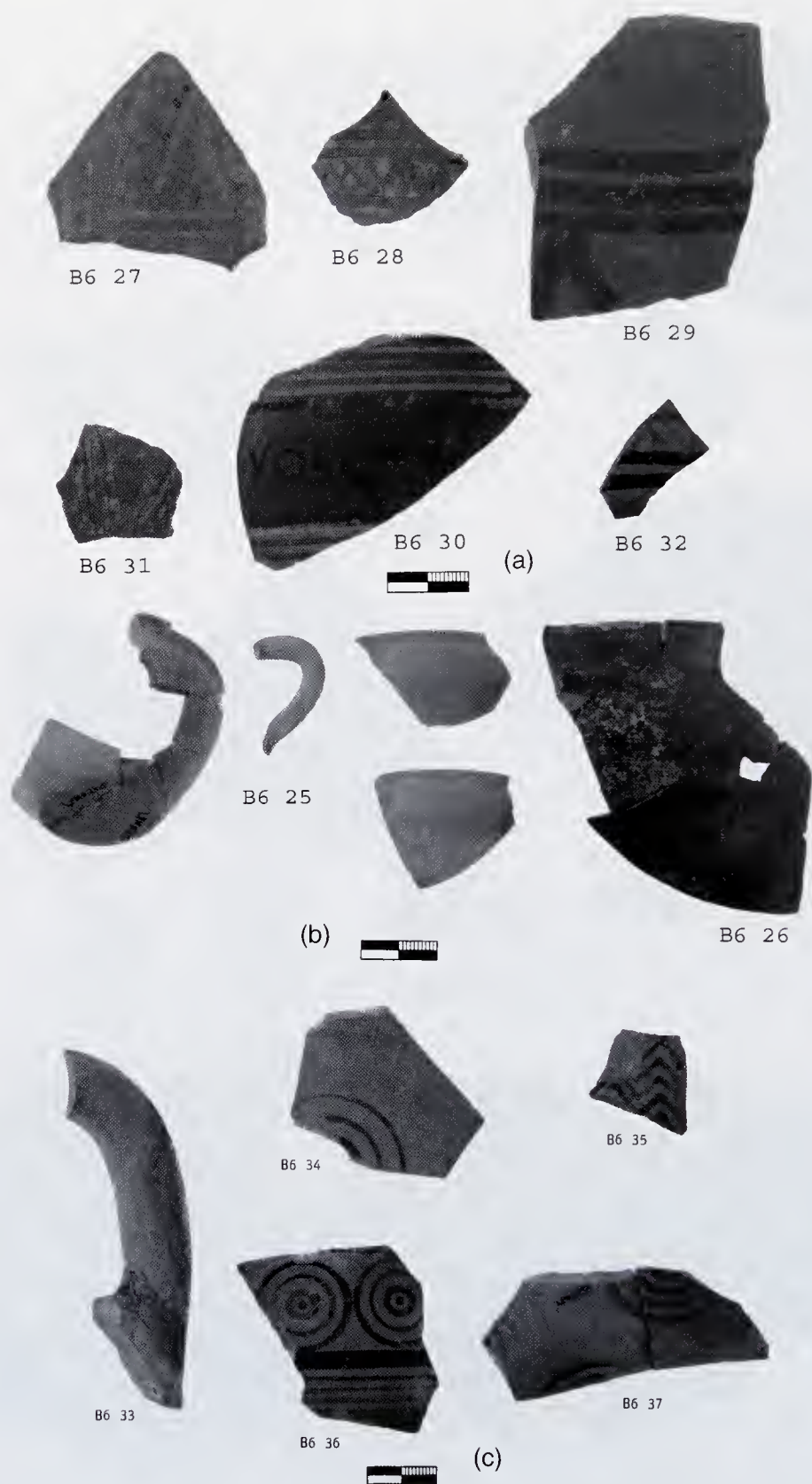
HATZAKI ET AL.
KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
Selected pottery from Deposits B4 (MG) and B5 (LO).



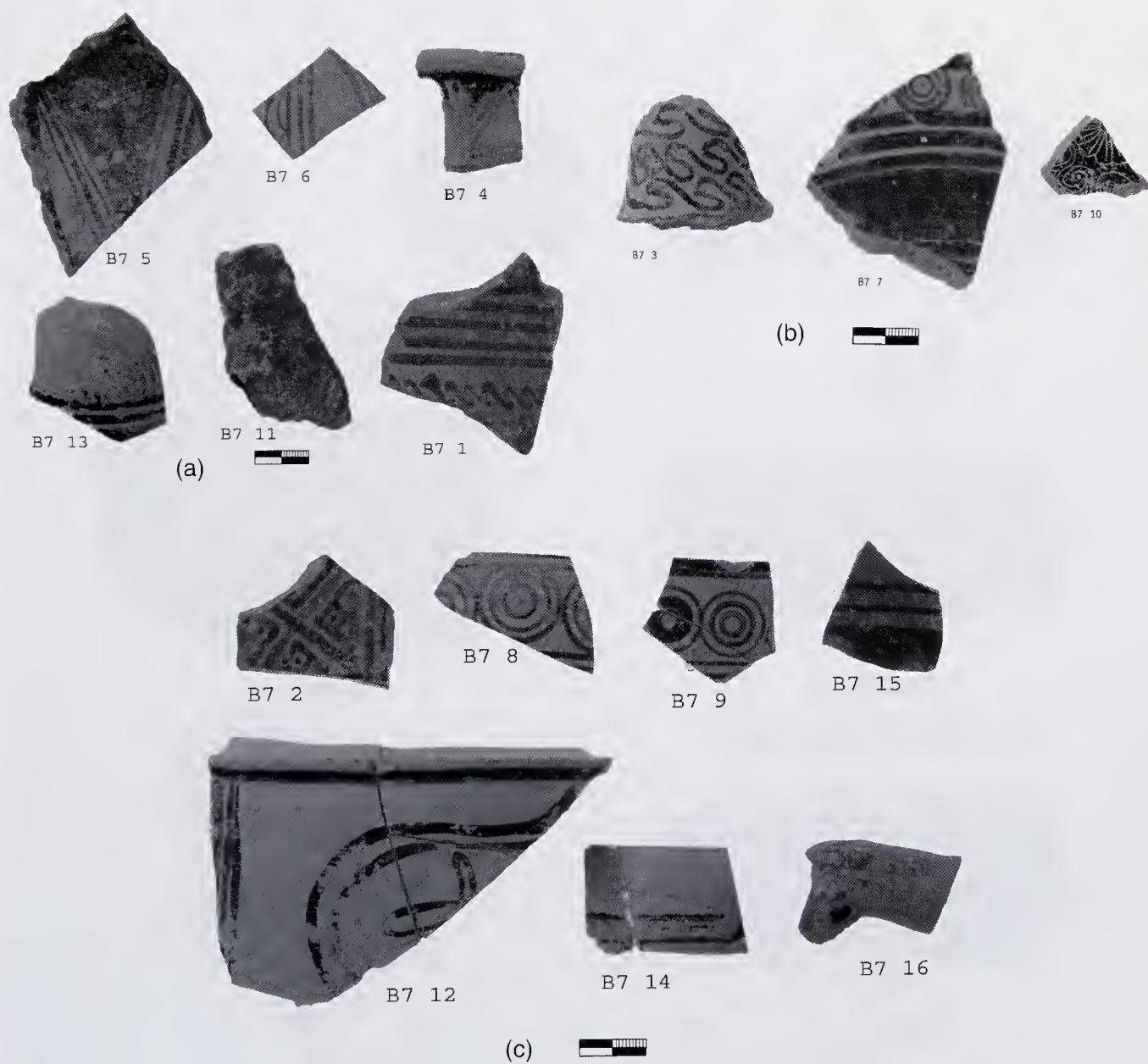
HATZAKI ET AL.
 KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
 Selected pottery from Deposits B₅ and B₆ (LO).



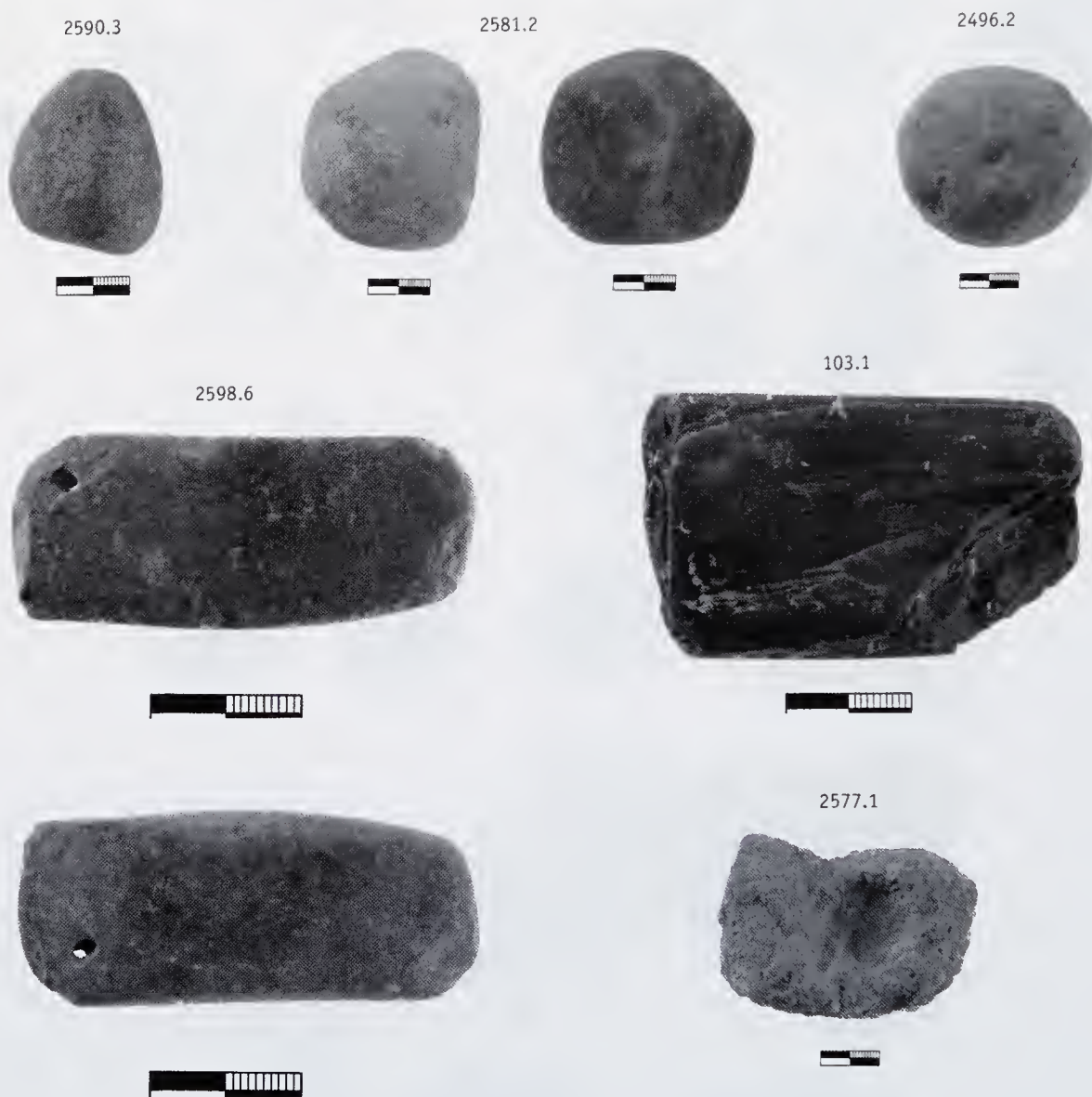
HATZAKI ET AL.
 KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
 Selected pottery from Deposit B6 (LO).



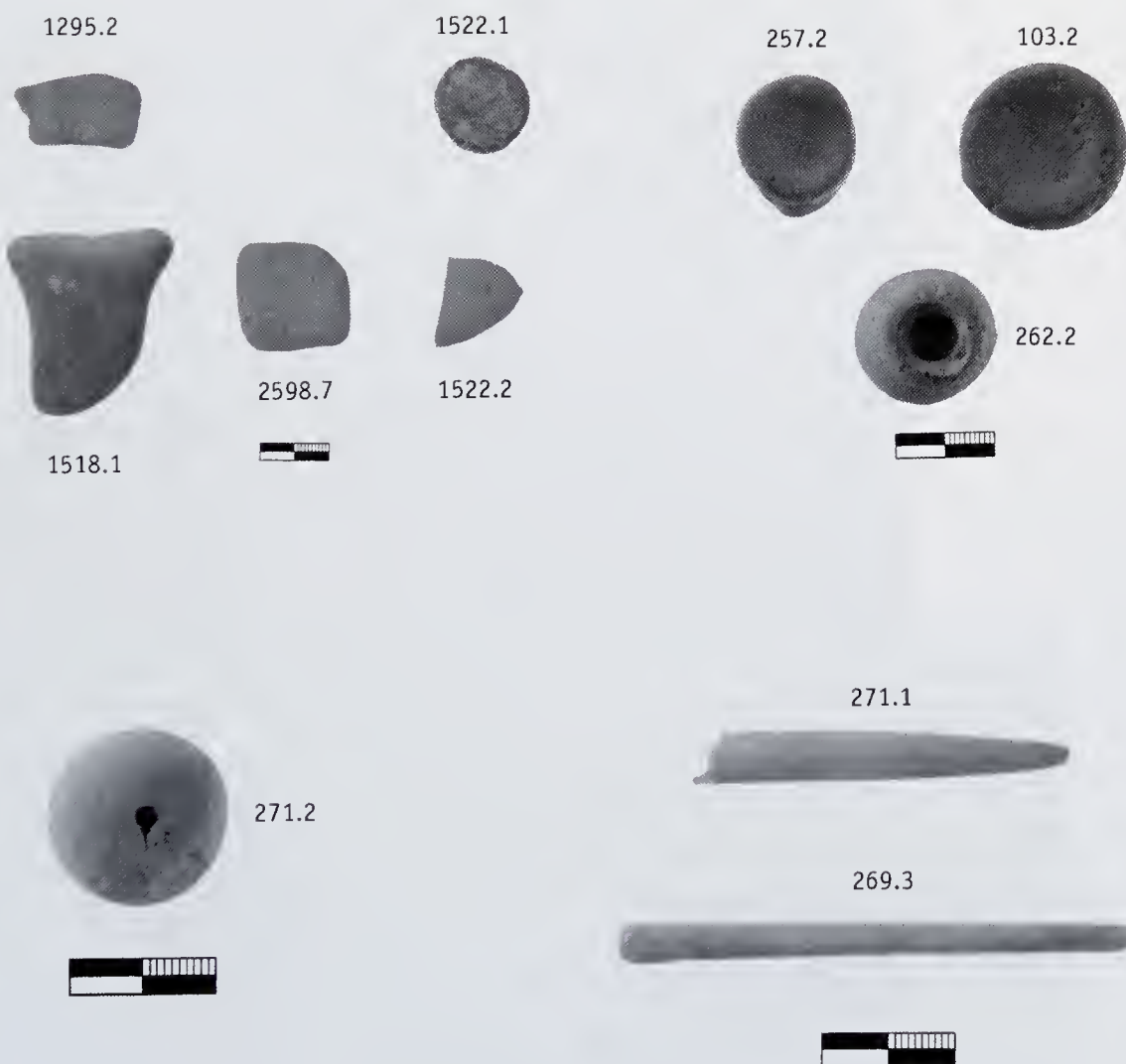
HATZAKI ET AL.
 KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
 Selected pottery from Deposit B6 (LO).



HATZAKI ET AL.
 KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
 Selected pottery from Deposit B7 (miscellaneous).



HATZAKI ET AL.
KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
Stone tools and a 'pivot'.



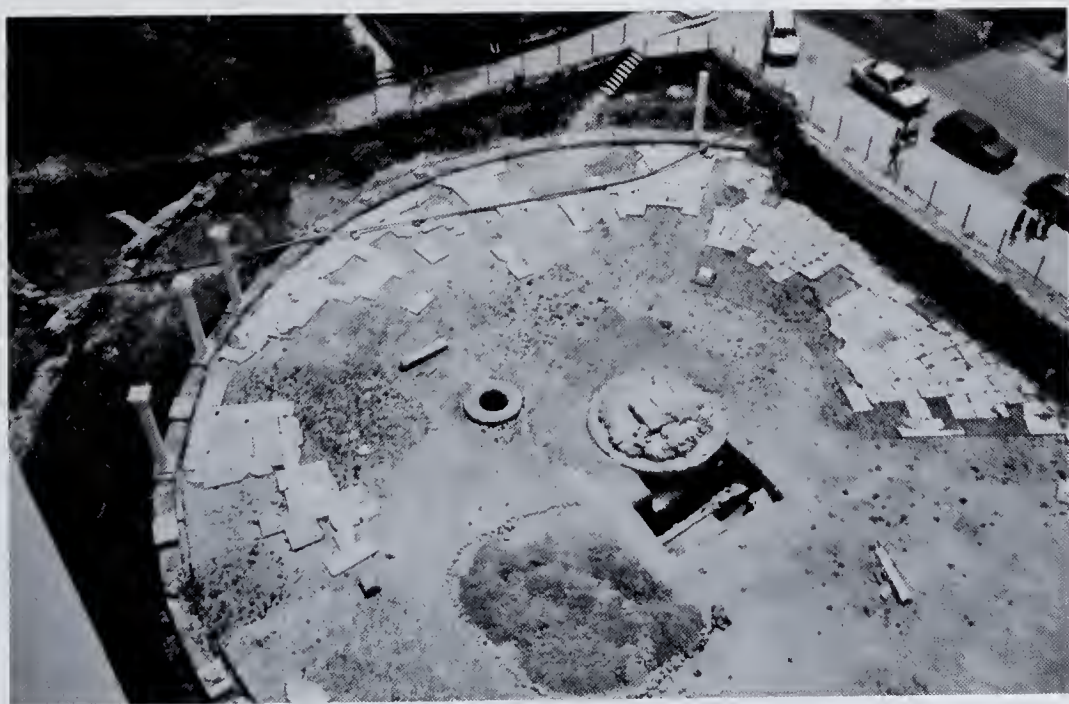
HATZAKI ET AL.
 KNOSSOS, THE LITTLE PALACE NORTH PROJECT: THE EARLY GREEK PERIODS
 Clay and bone objects.



HOTI ET AL.
THE EARLY BYZANTINE CIRCULAR FORUM IN DYRACHIUM (DURRËS, ALBANIA) IN 2002 AND 2004-2005; RECENT
RECORDING AND EXCAVATION
Forum and Macellum from north after excavations of 1998-9.



a. Macellum structures from north.



b. Forum colonnade, paving and Rotunda from north.
HOTI ET AL.

THE EARLY BYZANTINE CIRCULAR FORUM IN DYRRACHIUM (DURRËS, ALBANIA) IN 2002 AND
2004–2005: RECENT RECORDING AND EXCAVATION



a. Plinth and base 1.



b. Plinth, base and shaft 2.



c. Plinths, bases, shafts, and capitals 12 (left) and 13 (right).



a. Perimeter wall, plinth and base 20.



b. Plinth, base and shaft 22.

HOTI ET AL.

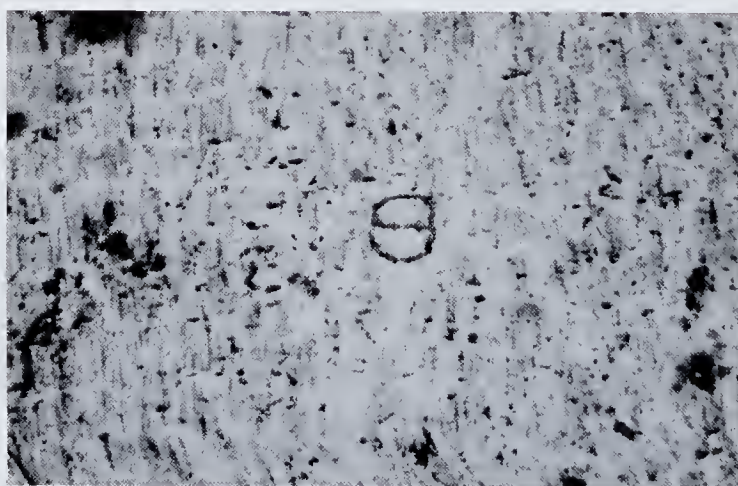
THE EARLY BYZANTINE CIRCULAR FORUM IN DYRRACHIUM (DURRËS, ALBANIA) IN 2002 AND
2004–2005: RECENT RECORDING AND EXCAVATION



a. Inscription 1.



b. Inscription 2.

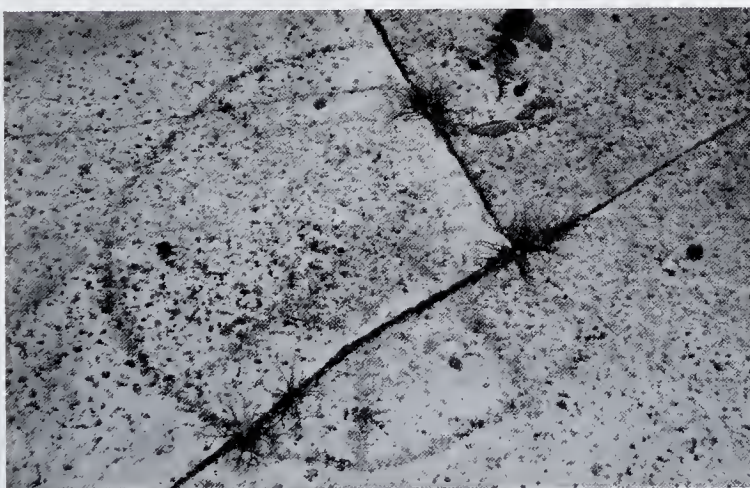


c. Inscription 7.
HOTI ET AL.

THE EARLY BYZANTINE CIRCULAR FORUM IN DYRRACHIUM (DURRËS, ALBANIA) IN 2002 AND
2004–2005: RECENT RECORDING AND EXCAVATION



a. Inscription and symbol 16.



b. Inscription and symbol 17.



c. The 2004 excavations from north-east.

HOTI ET AL.

THE EARLY BYZANTINE CIRCULAR FORUM IN DYRRACHIUM (DURRËS, ALBANIA) IN 2002 AND
2004–2005: RECENT RECORDING AND EXCAVATION



a. West and north profiles and Rotunda from south-east (2004).



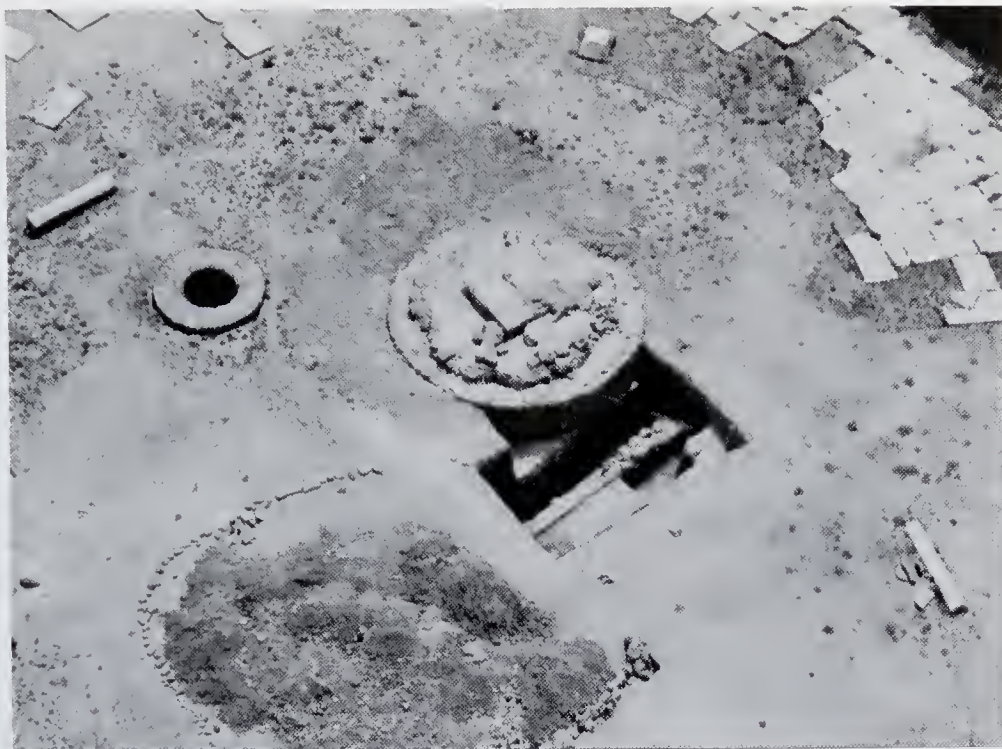
b. Tile floor (context 37) from north (2004).



c. North-south wall (context 15) and partly removed *opus signinum* and wall (context 23) above earlier levels from north-west (2004).

HOTI ET AL.

THE EARLY BYZANTINE CIRCULAR FORUM IN DYRRACHIUM (DURRËS, ALBANIA) IN 2002 AND
2004-2005: RECENT RECORDING AND EXCAVATION



a. The 2005 excavations from north-east.



b. Rotunda base and podium from north-east (2005).

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THE EARLY BYZANTINE CIRCULAR FORUM IN DYRRACHIUM (DURRËS, ALBANIA) IN 2002 AND
2004–2005: RECENT RECORDING AND EXCAVATION



a. East-west wall (contexts 205-6) and north-south wall (C12) from east (2005).



b. East-west wall (context 205), north-south wall (context 109) in east area of excavation, Rotunda, and podium from north-west (2005).

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THE EARLY BYZANTINE CIRCULAR FORUM IN DYRRACHIUM (DURRES, ALBANIA) IN 2002 AND 2004-2005: RECENT RECORDING AND EXCAVATION

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